

BIZWEEK

Economy | Business | Finance

bizweek.mu | SPECIAL ISSUE 555 | SUNDAY 03 AUGUST 2025

Primate Management Conference

From Care to Cure

Minister Kaviraj Sukon:

“Mauritius fulfilling its destiny as a guardian of human health”

Dr Steve Schapiro:

“We need to be prepared for the next disease or the next pandemic”

Mary-Ann Griffiths:

“The island now has global reach when it comes to improving human health”

Mehul Bhatt:

“In this industry, we are truly the best in the world, and that’s powerful”

Professor Melanie Graham:

“We’ve entered the era of a cure for diabetes”



From Care to Cure

The first Primate Management Conference took place this week in Ebene and Bel Ombre, bringing together an international group of scientists, ethicists, industry leaders, and local stakeholders to examine the future of non-human primate research, and the increasingly central role that Mauritius is playing in it. With delegates from the University of Minnesota, MD Anderson Cancer Center, and Johns Hopkins University among others, the gathering marked a turning point for an industry that has quietly become a national strength.

Mauritius has become the world's number one exporter of cynomolgus macaques, something Mehul Bhatt, Chief Strategy and Transformation Officer at Bioculture, affirmed unequivocally: *"In this industry, we are truly the best in the world and that's powerful."*

The conference started as an idea from Bioculture Group, and quickly extended to the sector as a whole. Through the Cyno Breeders Association, companies, including Noveprim–Charles River and ICL Cynologics joined forces to co-host a conference that was not only a technical exchange, but a signal of intent.

In this special edition of Bizweek, we bring you exclusive interviews with international experts and key Mauritian professionals who are building this momentum into something more: An opportunity to develop a thriving biotechnology ecosystem and a full research pipeline.

Dr Steve Schapiro, of MD Anderson Cancer Center, stressed that *"good science depends on good animal models,"* and that Mauritius provides some of the best in the world. But his most urgent point was forward-looking: *"We need to be prepared for the next disease or the next pandemic."*

Professor Melanie Graham, Director of the Preclinical Research Center at the University of Minnesota, described the conference's theme – from care to cure – as a scientific and ethical imperative. She shared groundbreaking research made possible by cynomolgus macaques from Mauritius, including progress on islet

cell transplants that could allow diabetes patients to live without insulin or immunosuppression. *"We've entered the era of a cure,"* she said. *"The next step is to make sure that cure is available for everyone."*

Dr Kaviraj Sukon, Minister of Tertiary Education, Science and Research, articulated a national vision aligned with this momentum. *"I choose transformation. I choose leadership,"* he said in his opening address, extending an invitation to pharmaceutical companies, biotech startups, and global health foundations to partner with Mauritius. He also insisted that *"every animal that leaves our shores carries with it the potential to unlock cures, to ease suffering, to extend life itself."*

Yannick Hardy, General Manager of Noveprim and President of the Cyno Breeders Association, made the case for developing local capacity across the research chain: *"Imagine a future where a treatment developed in Mauritius carries the label 'Made in Mauritius.'" That would be a major milestone for our country, and a significant contribution to global health."*

Hanzy Mundil, Business Development Manager at Noveprim, emphasized how behavioural management and staff training *"improve animal welfare, staff morale, and ultimately the quality of research."*

Sophie Julienne, of ICL Cynologics, echoed this, highlighting the importance of scientific protocols rooted in compassion and responsibility.

"This is not a low-tech, ruthless sector," concurred Mehul Bhatt. *"It's scientific, data-driven, and built on high standards of animal welfare."*

This is the story captured in the following pages: a sector at the crossroads of science, ethics, and national ambition. From being a top-tier exporter to becoming a center of biomedical innovation, Mauritius is charting a course toward a future where scientific breakthroughs are not just made possible by local resources, but developed, tested, and realized right here.

DR. KAVIRAJ SUKON,
MINISTER OF TERTIARY EDUCATION, SCIENCE AND RESEARCH

“Mauritius fulfilling its destiny as a guardian of human health”

- **Minister of Science and Research invites pharmaceutical companies, biotech startups and global health foundations to establish operations in Mauritius.**
- **“Every animal that leaves our shores carries with it the potential to unlock cures, to ease suffering, to extend life itself.”**
- **“I choose transformation. I choose leadership. I choose a future where Mauritius stands among the world’s great centers of medical innovation. This should be your choice as well.”**

Mauritius is entering a decisive phase in its contribution to global biomedical research. Speaking at the country’s first Primate Management Conference on July 28 in Ebene, Dr. Kaviraj Sukon, Minister of Tertiary Education, Science and Research, called for a bold shift – from supplying ethically bred primates to becoming a recognised centre of scientific discovery. He urged stakeholders to embrace innovation, invest in technology, and build international collaborations that position Mauritius not just as a contributor, but as a leader in medical research.



Mauritius is ready to transition from its well-established role as a trusted supplier of research primates to becoming an active player in global biomedical research. This was the central message from Dr. Kaviraj Sukon, Minister of Tertiary Education, Science and Research, at the opening of the country's first Primate Management Conference, held on Monday, July 28, at the Hennessy Park Hotel in Ebene.

"The sky's the limit," Dr. Sukon stated, as he called on local stakeholders and international partners to work together to build a future where scientific innovation, ethical responsibility, and economic strategy align. *"We stand at a crossroad. We can choose to remain comfortable in our current contributions, content with our established role as a trusted supplier, or we can choose transformation, embracing our potential to become a global center of biomedical excellence. A hub where research advances human health. And a model that demonstrates how small nations can make outsized contributions to global welfare."*

Stating his *"profound emotion"*, Dr. Sukon emphasised that the conference should not be limited to congratulatory speeches. Instead, it should serve as a catalyst for self-reflection, accelerated reform, and technological adoption. Acknowledging the short cycles of political life, he advised urgency: *"I think you are all aware the government has laid a lot of emphasis on Research and Development. Even the budget speech started with Research and Development. Therefore, we have the golden opportunity to promote research and development to make it a pillar of our economy. I sincerely believe that this conference will move beyond a traditional conference of comfortable congratulations. Let it become a wake-up call for the industry to embrace technology, as unfortunately, humanity is suffering. Today, history unfolds before us. We have the world's leading experts in primary research giving voice to Mauritius' contribution to global medicine. A contribution measured in lives saved and hope restored to millions of families across the globe. We will continue to support all the stakeholders along this path. Let's go beyond celebrating our achievements. Let's take this opportunity to challenge what we have failed to do."*

Mauritius is today recognized as a trusted and ethical supplier of research primates.

Its macaques, descended from Southeast Asian populations introduced in the early 17th century, have genetic consistency, excellent health profiles, and are free from dangerous viruses. That, combined with the exceptional standards of care they receive, have established Mauritius as the world's second largest source of research primates, with up to 14,000 samples exported annually to leading laboratories in Europe and North America.

"We should however never confuse quantity with purpose. Every animal that leaves our shores carries with it the potential to unlock cures, to ease suffering, to extend life itself," the Minister explained.

Among the major scientific advances that Mauritian primates have played pivotal roles in, Dr Sukon highlighted the following:

- Reversal of diabetes without long-term medication in pioneering research by Professor Melanie Graham at the University of Minnesota;
- Organ transplant innovations that reduce dependency on lifelong immunosuppressants;
- Dual-action inhalers for chronic respiratory diseases;
- Contributions to research on Alzheimer, Parkinson, and brain disorders; and
- Development of vaccines, including Moderna, Pfizer-BioNTech, and Oxford-AstraZeneca, during the early stages of the COVID-19 pandemic

"This cannot be a coincidence. This is Mauritius fulfilling its destiny as a guardian of human health," he said.

Dr. Sukon further stressed Mauritius' international reputation as a country that balances scientific advancement with moral responsibility. Referencing his own visits to breeding and research facilities, he praised the *"care, cleanliness, professionalism, and above all,*



Let us build a future together one where every study contributes to healing, where every breakthrough brings us closer to a world free from preventable suffering

respect shown to the animals," and quoted Mahatma Gandhi, for whom *"the greatness of a nation and its moral progress can be judged by the way its animals are treated."*

The Minister underlined that Mauritius deploys environmental enrichment, social group management, and real-time health monitoring, including advanced physiological and haematological indicators, to ensure animal well-being. *"Scientific excellence and moral integrity are not competing values. They are inseparable companions,"* he stated.

While Mauritius has proven itself as a reliable supplier, Dr. Sukon insisted the next step is to bring medical research to Mauritius itself. *"Our goal is to position Mauritius not just as a supplier, but as a full partner in scientific discovery,"* he said.

To that end, the Minister introduced bold proposals for integrating Artificial Intelligence and satellite data into the sector. Mauritius has recently secured access to

satellite imaging from India and Dubai, which could be used to monitor habitat conditions, track environmental stressors, and predict health outcomes.

"Why haven't we done this already?" he asked. *"The technology exists today to revolutionise both how we manage and research animals, and how we use them to advance human health."*

AI, he explained, is already reshaping drug development worldwide. At the University of Mauritius, research teams are running AI projects to accelerate preclinical development, allowing the screening of millions of compounds in days, accurate efficacy and safety predictions, adaptive trial designs that evolve in real time, and the selection of target patients for greater trial precision.

"AI won't replace animal research, but it will complement and accelerate it. The current drug development process takes 10 to 20 years and costs billions. AI can cut both," the Minister said.

Dr. Sukon extended a direct invitation to pharmaceutical companies, biotech startups, universities, and global health foundations. *"Come to Mauritius for high-fidelity preclinical trials using genetically stable, ethically treated primates in an environment where scientific rigour and moral integrity walk hand in hand,"* he said.

He also called on biotech entrepreneurs to establish research operations on our shores and urged universities to join in partnerships that *"transcend borders and disciplines."*

"We offer you trust, earned through decades of ethical practice. We offer you partnership, built on shared values. We offer you excellence that never compromises principles for profit," the Minister added.

In his final remarks, Dr. Sukon stated that the choice is clear. *"I choose transformation. I choose leadership. I choose a future where Mauritius stands among the world's great centers of medical innovation. This should be your choice as well."*

He challenged industry stakeholders, researchers, and international partners to share in this vision: *"Let this be the start of a new era, where we conduct research not only to supply the world, but to lead it. Let us build a future together, one where every study contributes to healing, where every breakthrough brings us closer to a world free from preventable suffering."*

DR STEVE SCHAPIRO,
MD ANDERSON CANCER CENTER

“We need to be prepared for the next disease or the next pandemic”

- “COVID vaccines were highly dependent on research involving non-human primates.”
- “The real opportunity lies in becoming a world leader in conducting research locally.”
- “Good science depends on good animal models, and the cynomolgus macaques from Mauritius are among the very best”

With China tightening controls on primate exports and global research institutions recalibrating their supply chains, Mauritius finds itself at a strategic inflection point. In an interview with Bizweek during the Primate Management Conference, Dr Steve Schapiro, of the MD Anderson Cancer Center, examines the scientific rigour behind Mauritius’s non-human primate sector, its prospects for expanding into upstream research, and the logistical, ethical, and regulatory groundwork still required if the country is to shift from exporter to research contributor.

What were the key points or findings from Mauritius’ first Primate Management Conference?

Well, I think the key theme revolved around the idea that good science depends on good animal models. And the cynomolgus macaques from Mauritius are among the very best, certainly when it comes to non-human primate research. So, anything we can do to further improve that model – to make it more precisely defined, with less variability – is something worth pursuing.

You’ve already heard how important the cynomolgus macaque is to diabetes research, for example. But there are many other areas of research where this species plays a vital role. The farms, producers, and partners here in Mauritius provide exceptionally high-quality models,



arguably the best available. We’re here both to acknowledge that excellence and to explore ways to enhance it by sharing new ideas, identifying gaps, and perhaps helping to remove a few obstacles that might be limiting further progress.

Mauritius has the ambition of developing its biotechnology sector. How do you assess this ambition, and where could it lead?

This could absolutely lead Mauritius to become a global leader. You’re already a world leader in producing and supplying non-human primates. But the real opportunity lies in becoming a world leader in testing and conducting research locally, not just exporting animals.

I believe Mauritius is ideally positioned for that. It’s not going to be easy. It will require significant investment, time, and capacity building. But if someone like the minister (Dr. Kaviraj Sukon, Minister of Tertiary Education, Science and Research), is focused on opportunities rather than obstacles, then your chances of success increase dramatically.

You want leadership that says, ‘yes, let’s try this,’ instead of ‘no, we can’t do that.’ From what I heard during his remarks on Monday, it’s clear he’s motivated and open to experimentation and innovation. And again, you already have two critical components: the expertise and the animal supply.

As we discussed both yesterday and briefly today, conducting research here in Mauritius, instead of

shipping primates abroad, reduces stress on the animals, which in turn improves their consistency and reliability as models. That’s a huge scientific advantage.

How much time would we need, according to your experience, to set up a real environment where we can conduct such research?

I can’t give you a definitive answer to that. It will depend on several factors, primarily the construction of facilities, and these include very specialized facilities that are required for the kind of research you’re aiming to do.

One important part is having the regulations established, and I heard that those should be in place by December. That will definitely get you along the path.

What I can say, based on my experience in the United States, and particularly at my facility, is that it takes a long time to build the laboratories and animal housing that are needed to conduct this kind of research. That’s just the reality.

Now, things in Mauritius might be able to happen faster, which is a positive. But I don’t have specific knowledge of the existing infrastructure here, or whether there are conditions in place that would help to accelerate the process. So, while there’s potential for it to move faster than it would in the U.S., the timeline will still depend heavily on how quickly those essential pieces, facilities, infrastructure, and regulatory approvals come together.



For the foreseeable future, we're still going to need non-human primates for many types of research.

During your introduction at the opening of the Primate Management Conference, you said that the idea is to help Mauritius take its research to the next level. What exactly does that mean to you?

It's always about the next level. You heard Mel (Melanie Graham, from the University of Minnesota) speak quite a bit about how we need to be prepared for the next disease, the next pandemic, whatever comes our way. That's a big part of what we mean when we talk about advancing the field.

I often talk about it in the context of behavioural management, which is my area of focus, but it really applies to the entire research enterprise. This is an evolutionary process. We're never done. There's always more that can be done, and more that can be improved. We can always do better.

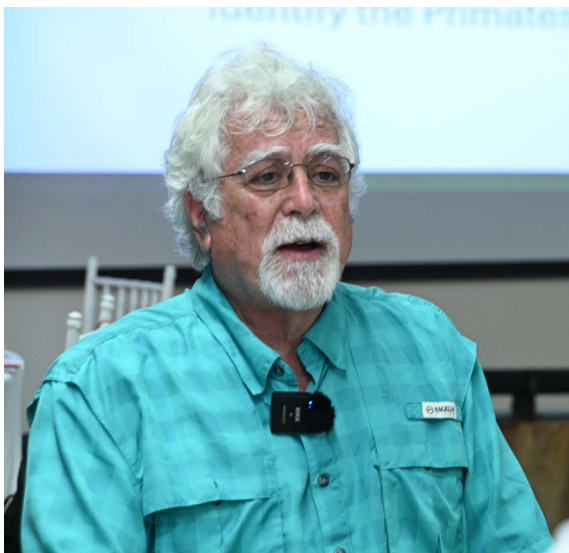
There's a progression: we have to do step A before we can do step B, and then step C and step D, but there's no final step where we say, "That's it." It keeps going. That's the essence of "the next level." It means not just doing what we're capable of today, but also thinking ahead, about what we need to do tomorrow, in a year, in two years, and beyond. It's a mindset of constant improvement, and I think Mauritius has a real opportunity to embody that.

You also spoke about science driving primate management. Could you elaborate on that?

Yes, absolutely. What I meant is that you just saw a whole series of data presentations, graphs, numbers... real evidence. And that's the foundation of how decisions should be made in this field. For example, whether it's better for animals involved in biomedical research to be socially housed or singly housed is not something we should just assume or decide based on opinion. We have to research it. We have to study it, collect the data, and prove it with empirical evidence.

That's exactly what all of the people gathered here are doing. They design studies, collect data, and analyze the results in order to determine what is actually better for the animals, for the science, and for the outcomes.

We can't just make statements like "paired monkeys are better than single-housed monkeys"



unless we have the research to back that up. And that's what science-driven management is all about: evidence-based practice, where policies and protocols are rooted in solid, validated research.

According to your experience, what progress has there been in finding cures for diabetes or even cancer through research involving non-human primates?

Well, as people have already said, the COVID vaccines were highly dependent on research involving non-human primates. That's a key example of how critical this type of research is. And obviously, Mel (Melanie Graham) is showing that she has, essentially, the basics of a cure for diabetes. That's really exciting.

As for cancer, I work at a cancer center, so I can speak from that perspective. We really haven't cured cancer yet. It's very difficult to cure. We know how to treat certain types of cancer, and in some respects, we know how to prevent certain types of cancer. But as far as coming up with an overall cure, we're not there yet.

Is there some kind of progress towards that?

Absolutely. There is definite progress. As people have mentioned, there's gene therapy, gene editing, and very specific types of immunological methods that are now being used.

Again, I want to be clear: I'm not an expert in cancer. I'm an expert in monkeys. So that's the best I can do. But from what I see happening around me, yes, real progress is being made.

How do you assess the initiative of Mauritius in hosting this type of conference?

Well, between Mary-Ann (Mary-Ann Griffiths, co-founder of Bioculture Group) and myself, it was our idea to organize it this way. Like I said, I've hosted the Primate Behavioral Management Conference at my facility in the U.S. many times. Mary-Ann, and all the other breeders and suppliers and partners have been sending people to those programs for years.

So, it just became doable for this program to occur here in Mauritius at this time and, I would add, it was very fortuitous timing. We were already in Madagascar for the International Primatological Society meeting, and it was just a short flight to Mauritius.

So, the timing worked out perfectly, and it became a realistic opportunity to host the conference here.

We often speak of AI and new technologies, and the idea of using fewer animals in experiments. How do you see that trend evolving?

Well, I'm not an expert in AI in any way, shape, or form. But Mel (Melanie Graham) is very much in favour of applying certain AI techniques to this type of research. Maybe AI can be used to screen which drugs are likely to be effective. Instead of testing 400 different compounds, AI could narrow it down to 10, and researchers could focus their efforts on those 10. That's an exciting possibility.

Now, one of the outcomes of that could be a little uncomfortable for some in the field: AI might eventually be too successful, meaning it could significantly reduce the need for non-human primates in research. And I don't think that's something the industry partners particularly want to hear.

But honestly, not in my lifetime. That's probably 10 to 20 years away, at least. For the foreseeable future, we're still going to need non-human primates for many types of research.

Coming back to current dynamics, we know that China has closed its export of monkeys because it's using them for its own research. How can that benefit Mauritius?

Well, it has already benefited Mauritius. Mauritius used to be the third-biggest exporter of cynomolgus monkeys. Now, you're the first. The demand for cynomolgus monkeys to participate in biomedical research in Europe and the U.S. has not gone down. The demand is still very strong.

But now, with China out of the picture, the only way to get the supply is basically from Mauritius. That has had a direct impact: it has raised the price of the monkeys. It's a classic case of supply and demand. Monkeys that used to go for X dollars now go for 2X dollars. That's obviously bad for the researcher, who now has to pay more. But it's very good for the supplier.

So yes, China closing its export of cynomolgus monkeys for research has turned out to be a real boon for Mauritius.

What, according to you, will the participants be taking away from this conference?

I think what the participants should take away is this: "Look at all this expertise we've been exposed to, these lectures, these insights, and think, 'how can I adapt this to my own situation?'" That's the mindset we hope to instil.

None of our speakers are working with 30,000 monkeys. You heard from Lydia (Lydia Hopper, from Johns Hopkins University). She's got 500 monkeys. Mel (Melanie Graham) has even fewer. At my facility, we have about 2,500.

So, what we're trying to do is plant seeds. The idea is that people here can fertilize those seeds, germinate them, and grow their own versions of the things we're talking about, adapted to their local realities.

We've done this many times, in many different places. The whole point is to show what's possible, and to help the participants think: "Maybe I could do this too."

Remember, we talk a lot about default options. Your minister said, "Let's try," instead of "No, we can't." That's exactly the kind of attitude we want the participants to take back with them.

So, if people leave here thinking, "Okay, maybe I can do that," then we've accomplished something meaningful.

MARY-ANN GRIFFITHS,
CO-FOUNDER OF BIO CULTURE GROUP

“The island now has global reach when it comes to improving human health”

• “This all started as a simple idea. It grew into an industry. And today, we’re standing at the edge of something even larger than the journey behind us.”

• “If you stay in your own corner and think that’s the only way, you’re already moving backwards.”

Forty years ago, microbiologist Mary-Ann Griffiths returned to Mauritius with a bold idea: to turn the island’s invasive monkey population into a valuable resource for global biomedical research. From humble beginnings – trapping monkeys, caring for them, and cleaning their cages herself – she helped build what is now a world-leading primate breeding and export industry. In this interview with Bizweek, Mary-Ann Griffiths reflects on the origins of Bioculture, the industry’s turning points, the Primate Management Conference which took place this week, and why Mauritius can become a regional hub for biotechnology and scientific research. “The sky’s the limit,” she says, as the country stands ready to move from breeder to research partner.

RUDY VEERAMUNDAR



From your early days of Bioculture to now, it's been quite a journey. Forty years.

Yes, forty years. And from those beginnings to this conference today, it really has been extraordinary.

Looking back, what do you recall as some of the defining aspects of that journey?

What do I recollect? Wow! It's a lifetime. It's remarkable how an idea we had eventually took root. I trained in microbiology and biotechnology, so I came from the research side. I understood the demand for primates in biomedical research.

You were based in Australia at the time?

Yes, I was in Australia. I was aware of the role monkeys played in research. And I always asked myself, "When I go back to Mauritius, what am I going to do?" That's really where the idea began. There were monkeys in Mauritius, of course. I knew from growing up that they were considered a pest from a biodiversity perspective – highly invasive and a threat to endemic birds. So, I thought: why not turn this pest into a resource?

We nurtured that idea. I came back and started looking around locally to assess feasibility, and also explored opportunities overseas.

Which year was this?

We started exploring the idea in 1983. I came back to Mauritius in 1984, and looked for a location for the farm. In 1983, before returning, we travelled to the UK. At that point, we didn't even know if there was a market for what we envisioned. We were hoping to start breeding purpose-bred animals for biomedical research, but we had no confirmation that there would be any demand. So we went to England, completely unsure of where to start. We even visited pet shops, asking if they could put us in touch with anyone using monkeys for biomedical research. It was challenging. Many people assumed we were animal rights activists.

Eventually, we were referred to a company called Shamrock Farms. They, too, were initially suspicious. But once we began speaking, they realised we were genuine. They told us, "Yes, we know there are monkeys in Mauritius. Go for it, we encourage you. We'll buy your monkeys."

And from there, we began. We knew absolutely nothing at the outset. We had to learn everything, where to find the monkeys, how to feed them... None of it was in any textbook. We had to rely on our own knowledge, ask questions, and gather people around us. We started with just three or four people. Today, we're a team of 750.

That's quite a trajectory.

It's been a lifetime. The milestones, the transformations... It's astonishing! Just imagine: when we began in Rivière-des-Anguilles, the entire village had only four telephone lines. Can you picture running a business in such conditions? That was the reality. We were among the first in Mauritius at the time to use portable phones. Those large, bulky ones. And today, here we are (she holds up her smartphone). That, to me, captures the magnitude of change we've witnessed over the decades.

You've witnessed the full evolution of this industry.

All of it, yes. And there's something not many people know: the monkeys we work with don't actually originate from Mauritius.

That's not widely understood.

No, it isn't. That's part of the issue. Animal rights activists often use that misconception. They portray the monkeys as native, as if they're in their natural environment here. But that's simply not true. These animals were introduced from Southeast Asia over 400 years ago. Mauritius, being a mid-oceanic island, had no native land mammals, apart from the fruit bat. So, when monkeys were brought here, they found ideal ecological niches.



This is one of the most highly regulated industries worldwide. Mauritius needs to push the bar even higher.



Their ability to climb trees made them particularly harmful to endemic bird species and reptiles. But it didn't stop there. From a flora perspective, they also caused considerable damage. For instance, they eat the seeds of invasive plants like Chinese guava. By doing so, they help propagate those species, which grow rapidly and choke out the slow-growing native trees. It's a real problem.

Starting the first farm, was that a tough experience?

Absolutely. It was incredibly tough. In the early days, I did everything myself. From trapping monkeys and providing veterinary care to scrubbing cages. I've done every job in this business.

We began with nothing. The beginnings were modest, extremely modest. To look at what the industry has become today is amazing. Just this past Tuesday, while attending the conference at Heritage Hotel in Bel Ombre, I found myself thinking: "Look at what has grown from that one simple idea."

During his speech, Yannick Hardy, President of the Cyno Breeders Association, mentioned the industry's contribution to foreign exchange. Back then, did you ever imagine it could reach this scale?

Never. It would have been impossible to foresee this. The whole thing took on a life of its own. Being on an island with limited resources, when one business idea works, others naturally follow.

That's how the industry developed here.

We could never have predicted that Mauritius would become the world's leading exporter of monkeys, particularly to the United States. And the research being carried out, the medical solutions emerging from this, is remarkable. For such a small island, the global impact we're having is truly profound. The island now has global reach when it comes to improving human health.

How did your first connection with the U.S. come about?

As I mentioned earlier, we initially exported monkeys to Shamrock Farms in the UK. One of Shamrock's owners, a German national living in the Philippines, came to Mauritius and became a minority shareholder in Bioculture. Later, in the early 1990s, he sold Shamrock Farms to Charles River Laboratories.

That was the turning point. When Charles River saw the quality of our monkeys, they immediately decided they wanted them for their U.S. operations. Until then, our animals had been used primarily in England and Europe. But Charles River redirected the shipments to the United States.

That must have been a major shift.

It was. At the time, we were selling all the monkeys we could produce, so demand wasn't an issue. But it was a turning point because it reshaped the industry. Suddenly, monkeys that had been destined for Europe were now going exclusively to the U.S. This created a gap in the European market.

That's when Sanofi, from France, entered the picture. They lead to Ferney establishing Noveprim, precisely because the supply from Bioculture was now going to America. So yes, it was a decisive moment. It catalysed the growth of the industry in Mauritius.

Earlier this week, the Minister of Science and Research, Dr Kaviraj Sukon, stated that Mauritius aims to make biotech a pillar of the economy. What's your reaction?

My reaction? It's about time. It's high time someone in government stood up and said this publicly. And you can sense the determination in his words. We've been saying this should have started ten years ago.

Breeding monkeys for biomedical research is just the beginning. The real value comes from building out the ecosystem, bringing research activities to Mauritius. There are so many reasons why that makes sense.

Finally, we are seeing the political will to make it happen. And if we get it right, biotech could indeed become a major source of foreign exchange for Mauritius. With research investments and therapies originating from this island, it's the natural next step.

Many experts from the U.S. attended this conference. You've interacted with many of them over the years. How would you describe these exchanges?

We've been collaborating and exchanging ideas with experts from the U.S., Europe, and elsewhere for a long time. It's an essential part of how we do business. If you remain in your own corner, assuming that your way is the only way, you're already moving backwards.

Progress comes from interaction, discussion,

learning, and being exposed to different ways of thinking. That's how your company grows. For me, this is not just a business practice, it's a way of life.

What would you say are the main takeaways from this conference?

Well, for the first time, instead of going abroad to attend conferences, we brought the scientists to Mauritius. That's hugely significant, especially for our teams on the ground. Many of them are not university graduates. They come from surrounding villages and have been trained by us. They work with deep commitment and passion for the animals.

For them to sit in the audience and hear world-renowned scientists speak about how the very monkey they held in their hands contributed to treatments for diabetes, hypertension, and other major health issues was a powerful moment. It made the impact of their work tangible. It was inspiring. And it won't be a one-off. We plan to host this kind of conference at least every two years.

How did the visiting experts react?

They were genuinely mesmerised. Many of them have been in this field for decades, but their own facilities are often much smaller. They're dealing with a few hundred animals. Here in Mauritius, we're operating at a much larger scale.

When we told them that we have 30,000 monkeys across all our sites, they were astonished. And when they saw what our staff are able to achieve, particularly in areas like socialisation and behavioural care, on that scale, they were truly impressed. After visiting one of our sites yesterday, they left with stars in their eyes. That says it all.

What are your views on the need for a stronger regulatory framework?

For this industry to become a recognised pillar of the economy, we absolutely need a robust legal framework. Over the years, Mauritius has earned a reputation as a trusted supplier, what our partners now call a partner, delivering primates of the highest quality for biomedical research.

If we're not yet conducting the research here, we must at least preserve and elevate our standards. This is one of the most highly regulated industries globally. Mauritius must adopt and adapt those regulations, and push the bar even higher.

People need to have confidence that any study conducted here meets the strictest international benchmarks. That means embracing good laboratory practices, transparency, and scientific integrity.

But creating such an environment requires both investment and time.

Of course. And the industry, here, is ready. We're willing to invest ourselves, and also to bring in international partners. Foreign direct investment is exactly what Mauritius needs. And this sector is capable of delivering it.

What is the current size of the workforce in the industry?

At the moment, around 2,000 people are directly employed across the sector. If you include indirect employment – those providing services, supplies, and support – you can easily multiply that figure by four or five.



When research activities begin, the numbers will increase. It may start slowly, but we expect steady growth over the coming years.

As a pioneer of this industry, how do you see the next 5 to 10 years unfolding? What, in your view, is the right pathway?

The key lies in establishing strong regulations and ensuring that everyone in the industry adheres to consistent high standards. Technology is evolving rapidly. What scientists are doing today will be transformed in two years' time.

We're at a crossroads. The pace of development is accelerating. Animal models will remain essential for biomedical research in the foreseeable future, but new technologies – AI, non-animal models, computational tools – will complement them. They will help speed up discovery, improve accuracy, and hopefully enable us to solve conditions we can't yet treat.

We're entering a fascinating era. And with the right combination of regulation, expertise, and investment, Mauritius can become a significant contributor to global medical progress. Faster than many might imagine.

The Minister has expressed a clear ambition for Mauritius to step into an era of conducting research locally. Are we ready?

Absolutely. The sky's the limit. Where we are now in Mauritius – if we have the right model, the right investors, and if everyone in the industry is aligned – we're more than ready. We can take this much further and significantly deepen our contribution to human health and global medical science.

Any final thoughts or message?

This all started as a simple idea. It grew into an industry. And today, we're standing at the edge of something even larger than the journey behind us.

There are so many paths open to us now. Mauritius is strategically positioned between India, Africa, and Europe. We have the resources. We have the will. We have the right people. It's a powerful combination.

This blend of geography, vision, and human capital is a winning formula. And together, there's no limit to what we can achieve. The sky is the limit.

PROFESSOR MELANIE GRAHAM,
DIRECTOR OF THE PRECLINICAL RESEARCH CENTER, UNIVERSITY OF MINNESOTA

“We’ve entered the era of a cure for diabetes”

• **“Mauritius is already the starting point, the engine of the biomedical research pipeline”**

Few countries sit at the intersection of animal welfare, scientific rigour, and strategic ambition quite like Mauritius. As the island state seeks a greater role in the global biomedical research ecosystem, Professor Melanie Graham, Director of the Preclinical Research Center at the University of Minnesota, explains why Mauritius’ cynomolgus macaques are central to some of the most advanced therapeutic breakthroughs. In a conversation with Bizweek during the Primate Management Conference held in Mauritius this week, she discusses how ethical care and scientific precision must move in lockstep to accelerate progress from care to cure.



**The message is:
if we’re going
to do this,
we’re going to
do it in the best
possible way.**



Professor Graham, what would be the key features of your presentation this morning (Tuesday, during the Primate Management Conference)?

I think what we're really trying to share with the teams here is how fundamental cynomolgus macaques from Mauritius have been to global biomedicine and to the breakthrough research that's happened for our patients, while also understanding how that science is closely linked to the incredible welfare efforts we undertake to make these animals suitable for scientific study.

We're really looking for that 'marriage' between welfare and science to elevate both. That's the core message we're trying to convey. At every level – from the source of the animals, meaning the farm, all the way through to the work that ultimately impacts the patient – we want that entire pathway to be as streamlined as possible, with the highest standard of welfare maintained throughout. That gives us the best chance of achieving major benefits for our patients.

How is diabetes research involving non-human primates progressing? Any good news for patients in the future?

Yes. I really think we've entered the era of a cure. We're starting to see therapies emerge that have moved beyond clinical trials. Today, diabetic patients with type 1 diabetes can be eligible for an islet cell transplant.

What's really exciting is the next phase of work that's being done in non-human primates: the ability to carry out these procedures without the need for immunosuppression. That means patients wouldn't have to trade their insulin syringe for a lifelong regime of immunosuppressive drugs. Instead, they would receive cell therapy and potentially be able to live the rest of their lives without any medication at all. That's truly exciting. Also, what we've learned in monkeys is that there are different unlimited cell sources. It's great to have a cure, but it's not a great cure unless it's available to everyone. So now, through work in non-human primates, we're learning how to use these unlimited cell sources to make the cure accessible for everyone who needs it.

You spoke about the use of the model in transplantation, particularly kidney transplants. Can you walk us through that?

Yes. Monkeys are used extensively and play an outsized role in transplant modelling. The reason for that is their immune system is so similar to ours. It essentially mimics or mirrors the complexity of the human immune system. That's why we prefer to use monkeys over mice, for example.

Similarly, our genetics are also very close. This allows us to use the exact same drugs in monkeys that we intend to use in human patients, without needing to create a different version. We can use the actual drug and observe whether it works. The results translate directly into human applications.

So, when we use the model for kidney or liver transplants, the goal is to find ways for patients to live better and longer – with fewer drugs. That means reducing drug toxicity and helping the body recognise that the transplanted organ belongs there. We want the organ to last a long time and for the patient to accept it as their own, without the need for high doses of toxic immunosuppression.

Cancer remains a major global concern. Can you provide any update on where the research currently stands?

I'm not a cancer expert myself, unfortunately. But again, much like in transplantation, the real key lies in targeted therapies, laser-focused treatments that aim at a single specific cell. It could be a tumour cell, or in the case of transplantation, an immune cell.

That's the only cell we want to affect, because we don't want to harm the rest of the patient. The work we've done with monkeys has helped us develop treatments that are more targeted, and therefore safer. And because they are safer, they're also more effective.

So yes, we have some really exciting developments coming down the pipeline, particularly involving monoclonal antibodies. These can extend patients' lives, and importantly, allow them to live in better health during that extended time.

“
The conference shows the commitment of Mauritius to taking on a leadership role.
”



One of the conference's key themes is 'From care to cure'. Can you explain the narrative behind that?

When we talk about realising a cure, the process begins right at the level of animal models. If we're asking an animal to model a disease that we hope to treat in humans, then the level of care we provide to that animal must be equivalent to the

care we provide to a patient.

Throughout the entire pipeline – from drug discovery through to the day millions of patients are using that treatment – we need to ensure that every contributor, whether it's an animal in a preclinical trial or a human in an early clinical trial, receives the absolute highest level of care. That increases our chances of success.

We don't want to be confused by other variables. We want a sophisticated model that gives us the best possible impression of how a treatment will perform later in the pipeline. If an animal is stressed, or if something else is going on, it won't be a good model for our patients.

That's why you've heard people talk about handling the monkeys in a less stressful environment. We are not interested in modelling stress. We are focused on discovering cures. And that starts with the highest possible standards of care.

How do you assess Mauritius' ambition to develop its biotechnology sector?

I think Mauritius is perfectly positioned to do this. If you look at what's already in place, the country is at the heart of a powerful biomedical model. The cynomolgus macaques that have been developed here are unique. Nowhere else in the world are there monkeys with this specific genetic background.

So, Mauritius is already the starting point, the engine, of the biomedical research pipeline. The next step is building this into the full pipeline we talked about. You remove the need to move animals around the globe, which is also a welfare issue. And then you take the culture of care that's already present at the supply level and extend it into the research environment.

You're not starting from scratch, you're adapting and applying something that already exists at a high level. That makes Mauritius perfectly positioned to support the global biomedical research system.

What are your views on the initiative of Mauritius hosting the Primate Management Conference?

It shows Mauritius' commitment to taking on a leadership role. The message is: if we're going to do this, we're going to do it in the best possible way.

The conference brings together global experts with years of experience, and Mauritius is taking full advantage of that expertise. You're integrating it into an already strong system. Mauritius already has a great foundation in this field, and by adding these additional components, you create a catalyst for something even more impactful.

What's happening here is the concentration of some of the best practices and ideas from different parts of the world. You're bringing all of that together in Mauritius to build a tremendous model. One that can answer the questions that require non-human primates. That's how I see your role, and it's a significant one.

MEHUL BHATT,CHIEF STRATEGY AND TRANSFORMATION OFFICER, **BIOCULTURE GROUP**

“In this industry, we are truly the best in the world, and that’s powerful”

- “This is not a low-tech, ruthless sector. It’s scientific, data-driven, and built on high standards of animal welfare.”
- “We started something here that we’re not just good at, we’re world-class.”

In a sector often misunderstood, a leading industry voice calls for a recalibration of the narrative surrounding Mauritius’s primate research industry. Arguing that the sector is not only highly regulated and data-driven, but also grounded in a deep sense of ethical responsibility, Mehul Bhatt, Chief Strategy and Transformation Officer of Bioculture Group, urges Mauritians to recognise the country’s world-class position and embrace its evolving role in global biomedical research. With greater awareness, he believes, Mauritius can lead not only in supply, but in shaping the future of science itself.

You’ve been in the industry for quite some time now. Based on your experience and what you’ve seen at the event, how would you assess the Primate Management Conference being held in Mauritius?

I’d look at it from two or three angles. First, awareness of the industry has grown significantly. There’s a lot more conversation happening around it – both the positive aspects and the challenges, including protests. But overall, I see a more open dialogue taking place. That’s partly because the industry itself has become more vocal and transparent. It has always maintained a certain level of openness, but in the last couple of years, it has become much more active in engaging publicly.

Second, we now have an industry association that brings together the three main players, all of whom are present at this conference. A recent example is the public conversation around tariffs, which has helped underline how important this industry is to Mauritius. It accounts for over 40% of our exports to the United States. That figure has been highlighted in the media, giving the industry much-needed visibility. I believe that’s a good starting point.

Now, looking at it from another angle: there have been ongoing discussions about evolving the industry beyond its current role. It is already extremely well-run and professional – one of the best in the world – complying not only with national regulations, but also international standards. The next step is to expand into research and development, creating a broader value chain within Mauritius. We’ve had many conversations about this over the past two years, and that effort is still ongoing.



So, we were very encouraged by the Minister’s (*Editor’s note: Minister of Tertiary Education, Science and Research, Dr. Kaviraj Sukon*) statement on Monday, where he said this issue would be treated as a priority. Hopefully, within the next few months, we’ll see a clearly defined, globally recognised framework established. That’s much needed. Honestly, I wish we had seen more progress in the last two years, but it’s something that still needs to happen.

The third point, which builds on that, is about how Mauritius positions itself. As we heard on Monday, the country plays a critical role in many global health solutions, including those related to COVID-19. But when it comes to how Mauritius is marketed or branded – ‘branding’ may not be the right word – it’s clear that very little has been

done to present Mauritius as a global research destination. Most media coverage of this industry outside Mauritius isn’t shaped or influenced by us.

If we want long-term success, we need to start shaping those narratives. We already have the MTPA for tourism. I’m not saying we need a brand-new agency, but maybe the EDB or the restructured MIBL could take up this role. The last national budget made a strong case for investing in research and development, and there are many avenues to pursue. But of all of them, this industry holds the greatest promise.

Historically, it was sugarcane. There was significant research on bio-agriculture, particularly sugarcane varieties, and Mauritius exported that expertise worldwide before eventually phasing it

out. But now, this primate research sector is our best chance at developing something new and exporting it globally. And in that regard, almost nothing has been done yet. That's an area where I would like to see much more action.

Where should Mauritius be more visible in terms of this industry? Which regions of the world matter most from that perspective?

Well, it's a fairly small and close-knit industry because research and development generally operate through peer-reviewed journals and scientific networks. There's strong global connectivity – people across different countries collaborate to produce new research. Of course, there's competition, but collaboration is also a big part of it.

Mauritius is already most exposed to the United States and, to a slightly lesser extent, Europe. So, if we focus our visibility efforts on just these two regions, that alone would be a good start.

That said, this is not the kind of visibility campaign you'd run like the MTPA does for tourism. It has to be much more targeted – participating in specific, high-level conferences around the world where Mauritius is represented as a unified entity, alongside all the key players in the industry. The message should be clear: we have the capability and ambition to become a preclinical research hub. And that effort should focus on three key areas.

First, the safety and efficacy of drug development. Efficacy being how effective a treatment is, and safety being how well-tolerated it is. These are the two pillars. Mauritius can play a role in ensuring these two aspects are tested to the highest standards.

Second, speed to market. The current drug development cycle takes 10 to 15 years. If we can help compress that timeline to even 8 to 12 years, that's a massive gain. It would really position Mauritius as a valuable partner.

And third, cost. Making the development process more affordable is crucial. These three parameters – safety and efficacy, speed, and affordability – define how effective the overall drug development pipeline is.

Now, with the rise of big data, AI, and machine learning, the whole process is changing rapidly. Mauritius is talking a lot about these technologies, and I think this industry gives us a rare chance to actually become world-class in one domain. So, I'd say we don't need massive marketing campaigns. What we need is focus and to reach out to the right people in the U.S. and Europe with a clear message about those three pillars.

One more point to add is the potential of India. There are many advantages to promoting this sector, and one of the most interesting is the geopolitical dimension. India is becoming increasingly important in drug development. It has always had a strong presence in pharmaceutical manufacturing, especially for generics, but has done relatively little in terms of developing new drugs.

India is now trying to catch up, particularly because China is already quite advanced in this area. But India lacks access to some critical components – especially non-human primates (NHPs) – because it doesn't currently have the right quality or scale needed for cutting-edge research. We're already seeing interest from Indian entities, particularly those working closely with American companies, who are looking for

research locations where NHPs are available and ethically sourced.

So, promoting this industry in India could also open up valuable opportunities for Mauritius.

Is Bioculture currently engaging with India on this matter?



The people who work in this industry care deeply about animal welfare.

Yes, we're seeing a lot of demand. A few months ago, we submitted an application to obtain our research license to conduct non-terminal studies, which are permitted in Mauritius. We're currently working with the authorities to complete the licensing process. Once that's in place, we plan to begin collaborations with two Indian companies to carry out their non-clinical research here in Mauritius.

What would it take for this industry to evolve into a full-fledged pillar of the Mauritian economy?

Like with anything else, the first step is always leadership commitment. Without that, progress is rarely sustainable. What we heard from the Minister on Monday – his vision of making Mauritius a base for biomedical research – is an encouraging start. We actually heard a similar message two years ago when MIBL was established. That was a great idea and an important move, but more steps are needed to turn the vision into a reality and make this industry a true economic pillar.

So, first, leadership must articulate a strong vision and follow through with consistent execution.

Second, we don't need to reinvent the wheel. The industry already exists here. Over the past few days, we've seen globally recognised experts travel to Mauritius to learn, exchange knowledge, and train together. Some of the universities represented – like the University of Texas and the University of Minnesota – are among the best in the world in this field. That tells us we already have international recognition and valuable relationships.

Once leadership has made its commitment clear, the next step is global benchmarking. We need to look at where the industry is heading: What is the FDA doing? What's the direction taken by agencies in India or Europe? Mauritius has a unique advantage – we maintain strong diplomatic and political relationships with all these countries. That puts us in a good position to align quickly with global standards. And we must do this. We cannot afford to compromise on quality or standards. Whatever we implement in Mauritius has to meet internationally accepted norms.

This alignment shouldn't take too long. Much of the basic framework is already in place – we just need to adapt it to where we want to go. This

could be done within a couple of months.

The third step is execution. Once the parameters are set, we need to ensure the system actually works. This is a highly regulated industry. Every time an animal is used for research, there's a process of ethical review. Typically, research proposals go through an ethics committee made up of a diverse group – scientists, government representatives, and members of civil society. That's just one example of the governance structures required.

Once the infrastructure is in place, companies must be able to count on a predictable, timely process. If a company submits a request for a study, they should know how long it will take to get a decision – approval or rejection. After a study is completed, there will be a need to export samples and associated data. The entire framework must function efficiently. If it takes three months just for the ethics committee to respond, we risk losing the very advantage we're trying to build. Companies would simply go elsewhere.

The fourth step involves marketing on two fronts. First, we need to attract research companies to Mauritius. Second, we need to attract talent.

While many skill sets are already present in the country, others are missing. In some cases, members of the Mauritian diaspora might have the right expertise. In others, we'll need to bring in international talent with the required technical capabilities. So, building a strong talent pipeline and creating a brand for Mauritius in this field will be critical.

We heard a strong call to action from the Minister of Science and Research. He invited international pharmaceutical companies to come to Mauritius. How do you see this happening?

I think we need to put ourselves in the shoes of these companies and ask: *Why would they come to Mauritius?*

Pharmaceutical companies, today, play a very different role compared to the past. The drug development process is long and expensive. As we saw yesterday, it takes between 7 and 15 years and costs hundreds of millions of dollars. Thirty or forty years ago, pharma companies managed the full value chain internally. That's no longer the case.

Today, much of the early-stage research is done in universities or by individual scientists. Some still takes place within pharmaceutical companies, but not all. Then there's a whole venture capital and private equity ecosystem that identifies promising opportunities, takes different types of risks, and supports them through the development pipeline. If those projects succeed, they're often acquired by larger biotech firms, which in turn may be bought out by pharma companies.

Pharmaceutical companies now excel in regulatory processes, marketing, and access to markets. Their strength lies in bringing approved drugs to market efficiently, rather than conducting every stage of R&D themselves.

So, in Mauritius, we're not likely to begin with proprietary research happening locally. Instead, we can focus on contract research – service work done on behalf of companies engaged in proprietary research. That's where the opportunity lies.

One such service company, Charles River, is already present here through its acquisition of Noveprim. This shows it's possible. What we need

now is for pharma companies to understand that Mauritius has both the ambition and the capacity to become a top global research destination. Once they're convinced, they can direct their research partners – CROs and service organisations – to work with companies in Mauritius. That's how the ecosystem grows.

So yes, the Minister is absolutely right. We should engage with pharmaceutical companies. But we must understand that their role will be more about influence than direct investment. They're unlikely to set up operations here themselves, but they can encourage their research partners to do so. At the same time, we need to think long-term about moving up the value chain. Transitioning from being breeders and suppliers to eventually developing our own medicines isn't a 10-year journey. It's more like 20 or 30 years.

But your question was: How do we make it a pillar? Personally, I would define a "pillar" as an industry contributing at least USD 1 billion – or around MUR 45 to 50 billion – to our GDP. Ideally, even more. Right now, this industry is closer to MUR 5 billion. So, we're talking about a tenfold increase. That won't happen by exporting ten times more primates – that's not where the growth lies. Instead, we need to capture more of the value chain and bring it to Mauritius.

The good news is that we already have many of the building blocks: the relationships, the biological resources, and the commitment. If we can execute the steps we've discussed and grow this industry to the level where it contributes MUR 50 billion or more to the economy, then yes, I'd be happy to call it a pillar.

We recently interviewed Dr. Rattan Gujadhur, a biotechnology expert based in the U.S., who mentioned that countries like Nigeria and Rwanda are taking biotech seriously, and that Mauritius should not rest on its laurels. What's your take on that?

I think he's absolutely right. Many countries are making moves in this space. Some are focusing more on manufacturing and setting up GMP (Good Manufacturing Practice) facilities to produce local medicines. There's also growing R&D activity. But I don't think any of those countries currently have a real head start over Mauritius when it comes to becoming a serious research hub.

Mauritius has something they don't – long-standing, trusted relationships with top pharmaceutical companies, elite universities, and global contract research organisations. That's a real advantage.

Rwanda, for example, has taken some impressive steps. If I'm not mistaken, they've recently reviewed and revamped their regulatory agency, aligning it more closely with the U.S. FDA model. That's a smart move, especially if you want to build credibility. But Mauritius already has a functioning ecosystem. This is already a MUR 5 billion industry here.

The point is, in many other countries, you would need to offer significant incentives – tax breaks, subsidies, infrastructure – to attract companies to set up operations. In Mauritius, we're already well-positioned. We just need to build the right regulatory framework and ensure predictable execution. If we do that, companies will come.

So, we're not trying to create this industry from scratch. The fundamentals are here – we just need to unlock the next stage.

As for manufacturing, that's another discussion. I'm not sure that any African country – Mauritius

included – can truly compete in pharmaceutical manufacturing with giants like India or China. Those countries have invested heavily for decades in human capital, infrastructure, logistics, and supply chains. It's incredibly difficult to match that scale or efficiency.

And in Mauritius, it wouldn't make sense anyway. We don't have the population size or industrial base to do that effectively. The same is true for Rwanda. Nigeria is a different case because of its scale, but even there, competing at the same level as India or China would be a massive challenge. Even if we did go down the manufacturing route, it would be a low-margin, volume-based industry. The revenues might look good, but the profits – and the economic value – would be limited.

That's why I believe Mauritius should focus upstream – on research and development. That's where real value is created. It's also where we can build high-value, future-proof jobs for the next generation of Mauritians, whether they stay here or take their skills abroad. If we're serious about building a knowledge economy, that's the path we should follow.



If we can help 99% of Mauritians feel proud of the role their country plays in advancing global health, then that, to me, would be a huge achievement.

I have a final question on the conference. What, according to you, will it bring to Mauritius, and what can it be going forward?

The first thing that it brings is that it validates the place Mauritius has in the world of science and research. It validates it. Why would some of the world's top scientists come to Mauritius to look at what we're doing and to train? I think one of the things that you heard during this conference is that some of the people who've come here have always looked at Mauritius as a supplier, and now the only word you hear today is partner. So, they're truly impressed. They always knew it was really good, but when they come and see it for the first time, they are validating that the way things are being done over here is more than world class.

Maybe in this industry, compared to any other industry, we are truly the best in the world, and that's powerful. And that is not coming from us. That's coming from globally recognized experts in their field. We are very good at hospitality, but we're not the best at hospitality. We're very good at global business and financial services, but we're not the best. I think in this one, we probably are number one, if not close to number one. We're definitely better than any other source market around the world.

And that's thanks to the three large players who've taken all this time and energy to actually

put the right systems and frameworks in place, to work together with the authorities to ensure that the local standards are great. It's thanks to the government who've made sure that they've empowered representatives who are here, to make sure that they are trained enough so that they can audit and make us better. So, in this case, we're probably number one.

So, I think the validation is probably the biggest benefit.

The second thing that the conference obviously aims to do is to make sure that Mauritius becomes even better at supplying the right NHPs to the research world so that the research outcomes are better. Again, we heard that all of us, including the ones over here, would like fewer animals to be used in research than more. We think that can really fast-track the drug development process, and that's a good thing.

So in this particular conference, I think a lot of the ideas that are being discussed are to make sure that we all understand what is cutting-edge research, implement that into our day-to-day practices, and make sure that the product and the services that we supply to the world today – and hopefully what we will do in Mauritius in the future – is constantly and fully the best at it in the world. And I think that's a great outcome.

The third thing, I think, is that when people get together, that's a positive outcome. I'm seeing a lot of conversations and discussions between people working for different companies, and a big benefit that comes out is people sharing ideas. People share ideas in terms of how things are being done. I think I said to you, in an earlier conversation, that one of the things that I find the strangest is that while we all compete in Mauritius, sometimes, when we go out of Mauritius, we have to find a way to collaborate and bring the Mauritius brand out there.

Any concluding message for this interview?

I think the one message I would like to leave is this: unfortunately, many of the public conversations around this industry are often one-sided or misrepresented. They create an image of the sector as something low-tech, basic, even ruthless, and lacking in sophistication or compassion. And that couldn't be further from the truth.

If more people took the time to truly understand what this industry is about, they would see how highly sophisticated, data-driven, and scientific it really is. They would understand the critical role it plays in developing life-saving medicines and the future opportunities it offers for Mauritius.

What's more, the people who work in this industry care deeply about animal welfare. Many of them have pets themselves. They genuinely want to give the animals in their care the best life possible. Ethics and welfare aren't afterthoughts – they are central to how the industry operates.

If we can change the narrative, if we can help 99% of Mauritians feel proud of the role their country plays in advancing global health, then that, to me, would be a huge achievement. Because we should be proud. We started something, here, that we're not just good at, we're world-class.

We now have a chance to take this further, to play an even greater role on the global stage. And I believe that shift – in mindset and recognition – could be a game changer.

That's what I hope for.



YANNICK HARDY,

GENERAL MANAGER AT NOVEPRIM AND PRESIDENT OF CYNO BREEDERS ASSOCIATION (CBA)

Building a Biotech Future: Why Mauritius Needs the Right Framework Now

- **“Imagine a future where a treatment developed in Mauritius carries the label Made in Mauritius.”**
- **“That would be a major milestone for our country and a significant contribution to global health.”**

Yannick Hardy, General Manager of Noveprim and President of the Cyno Breeders Association (CBA), shared his perspective, at the Primate Management Conference held at Bel Ombre, on Mauritius’s role in the global biomedical ecosystem, the country’s emerging biotechnology ambitions, and the steps needed to make this a sustainable economic pillar.

This conference was a landmark for your industry. Can you speak about the initiative behind it and how it aligns with Mauritius' biotech aspirations?

This initiative originally came from Bioculture, one of the members of the Cyno Breeders Association. The association, which also includes LCL Cynologics and Noveprim, decided to support and co-own this initiative to reflect our collective vision for the industry and for Mauritius. Bringing international experts together here is an excellent move because it helps raise awareness, foster dialogue, and strengthen collaboration. Mauritius is clearly signalling its ambition to position itself as a player in the global biomedical field, particularly following the recent national budget and government announcements. We believe biotechnology can become one of the future economic pillars of Mauritius, and this conference is an important step toward achieving that goal.

In your speech, you said that the industry's objective is "to create healthier lives." What does that mean in practice?

At Noveprim, and within Charles River, our purpose is "Together, We Create Healthier Lives." Everything we do is connected to that mission. Our role in the biomedical research chain supports the development of treatments that improve or save human lives, while ensuring that animal welfare remains a top priority. This commitment drives every decision we make, from ethical breeding practices to fostering innovation and research partnerships.

You also mentioned that the industry is a significant source of foreign currency.

That is correct. This is a fully export-oriented industry, and all of our revenues are generated in foreign currencies. This creates an important inflow for Mauritius, particularly at a time when foreign exchange is in high demand. Beyond that, our sector attracts foreign direct investment and creates skilled employment, reinforcing its importance to the national economy.

What is your view on the government's stated ambition to build a biotechnology research ecosystem in Mauritius?

The government's message has been very clear and encouraging. Developing this ecosystem is essential if we want to move beyond being just a supplier and position Mauritius as a recognized player in global biotech. The comparison with the financial services sector is relevant. It started small, built strong governance, and became a major contributor to the economy. Biomedical research can follow the same path if we put the right structures in place. That includes legal frameworks, ethics committees, and globally recognized standards. The interest shown by international researchers during this conference demonstrates that Mauritius has the potential to attract talent and investment.

You said that "as an industry, we believe in the youth." Can you expand on that?

Developing talent is a top priority for us. We are already engaging with the University of Mauritius and the University of Technology to create strong academic partnerships. Charles River, our parent company, is also exploring ways to support this effort. If we want this industry to succeed, we need to prepare the next generation of scientists,



veterinarians, and technicians. Today, many qualified Mauritians return home only to find limited opportunities, and often leave again. By building this sector, we can reverse that trend and create high-value opportunities that encourage our brightest minds to stay or return. This is a sector of the future, and it begins with education and skills development.

Do you believe Mauritius has the talent and skills to support this industry?

Yes, absolutely. Mauritians hold senior positions all over the world, which speaks to the strength of our human capital. While training and upskilling will be necessary, we already have a solid foundation. Our cultural diversity and the incentives announced in the recent budget are strong advantages. With the right support, Mauritius can quickly develop the capabilities needed to make this industry thrive.

In your speech, you mentioned Mauritius becoming a "regional laboratory." What does that mean?

I was referring to Mauritius as a laboratory of talent and innovation. Take for example Charles River's investment in Mauritius. It is its first in Africa, which is a strong endorsement of our capabilities. However, to move forward, we need to consolidate the foundations by establishing legal frameworks, Good Laboratory Practices (GLP), ethics committees, and advanced infrastructure. These steps are essential for attracting more research activities. Bringing the world's largest research organization to Mauritius through Noveprim sends a clear signal: Our island has the capability to become a credible regional hub for biomedical research.

Dr Steve Schapiro said, "We are here to help Mauritians in the field of research reach the next

level." What does that mean to you?

It highlights the importance of collaboration. We cannot build a research ecosystem in isolation. The current legal framework limits the scope of research that can be conducted locally. Dr. Schapiro's message is clear: to develop a full research pipeline, Mauritius needs robust regulatory and ethical structures. This would allow more research to take place locally, reduce the stress associated with transporting animals, and improve scientific outcomes. These are critical steps toward making Mauritius a recognized research hub.

Dr Sukon, the Minister of Tertiary Education and Research, said that Mauritius should not only supply animals for research, but become a research centre in its own right. How realistic is this ambition?

I believe this ambition is entirely realistic. At present, we are mainly a link in the supply chain, but hosting researchers here, as we did during this conference, is an important first step. A full research value chain, from breeding to advanced studies, can be achieved if the government, academia, and industry work together. The interest and commitment are already visible. Now it is a question of execution.

Given that diabetes is widespread in Mauritius and cancer is growing globally, how do you see the industry contributing to the fight against these diseases?

These are urgent health challenges. Professor Melanie Graham reminded us that one in eleven people globally lives with diabetes, and in Mauritius, it is one in five. Most of us have a family member who is affected. Imagine a future where a treatment developed in Mauritius carries the label "Made in Mauritius." That would be a major milestone for our country and a significant contribution to global health.

As President of the CBA, what final message would you like to share?

I would like to thank Bizweek for covering this important conference, as well as the international experts who joined us and placed their trust in our industry. Their presence demonstrates that Mauritius has what it takes to become a respected player in biomedical research. Both the government and private sector are aligned on this vision, and I am confident that biotechnology can become a major pillar of our economy if we maintain this momentum.

Where do you see the industry in two or more years? What's your vision for its development?

The next two years are crucial for laying the foundation. We must move quickly to establish the legal and ethical framework, but we need to do so properly, with the right structures in place to avoid missteps. If we succeed, Mauritius will be well positioned to develop an advanced ecosystem that combines breeding, research, and innovation. Drug development is a long process. Traditionally, it has taken 10 to 20 years for a drug to make it to patients. However, the process is changing. The advent of AI and similar technologies is increasing efficiencies and helping drive progress forward faster. Our vision is clear: within five to ten years, we aim to see research outcomes proudly associated with Mauritius.

SOPHIE JULLIENNE,
COMMERCIAL MANAGER, ICL CYNOLOGICS

“Committed to advancing biomedical science and supporting responsible research”

Sophie Julienne, Commercial Manager of ICL Cynologics, sheds light on the growing role of Mauritius in global biomedical research and its ambition to develop a robust biotechnology sector. From the recognition of Mauritian macaques in major medical breakthroughs to the ethical foundations driving their work, she emphasizes how LCL Cynologics is evolving beyond breeding to contribute directly to the future of healthcare innovations.

From your perspective, what would be the key takeaways of the Primate Management Conference?

The conference has been a highly insightful platform, showcasing the many milestones that make up the value chain of this industry. For us in Mauritius, where our focus is breeding, it's particularly enlightening to see how our work supports researchers, and ultimately transforms patients' lives through medical breakthroughs.

From an international standpoint, it is also deeply rewarding to witness the recognition of Mauritian macaques as a crucial contributor to global medical research. This acknowledgment reinforces the importance of our mission and the positive impact our efforts have on advancing human health worldwide.

Mauritius has the ambition of developing its biotechnology sector. How do you assess this ambition and where can this lead to?

Mauritius' ambition to develop its biotechnology sector is both timely and promising. The country already possesses strong foundations, including



Scientific innovation, ethics, and compassion can, and must, go hand in hand.





Mauritius has the potential to position itself as a trusted hub for biotechnology, thanks to its ethical standards, skilled workforce, and strategic location.



a reputation for high ethical standards in breeding, a skilled workforce, and a strategic geographic location that facilitates global partnerships. These assets give Mauritius the potential to position itself as a trusted hub for biotechnology in the region.

If nurtured with the right policies, investments, and international collaborations, this ambition could translate into a thriving sector that not only contributes significantly to the national economy, but also plays a crucial role in advancing global medical research. It is an opportunity for us breeders to integrate ourselves deeper into the value chain. From being primarily providers of high-quality primates, we evolve into active contributors to wider biotech solutions.

Ultimately, this could lead to Mauritius becoming a recognised player in medical innovation, fostering breakthroughs that improve human health worldwide while also creating sustainable growth opportunities for the country.

What are your views on Mauritius hosting the Primate Management Conference and the interaction with international experts?

The Primate Management Conference was an opportunity to demonstrate that Mauritius is not only committed to advancing biomedical science, but also deeply engaged in the ethical considerations that support responsible research. This gathering provided a platform to show how scientific innovation, ethics, and compassion can, and must, go hand in hand.

The event also allowed the audience to hear from global experts who acknowledged the vital role of Mauritian macaques, known for their unique genetic consistency, in some of the most significant medical breakthroughs of recent years. International experts at the conference supported their arguments with compelling



data, notably showcasing their role in developing diabetes reversal therapies that reduce long-term medication dependence. They also highlighted advances in organ transplant research that minimise the need for lifelong immunotherapy, as well as the development of dual-action inhalers for chronic respiratory diseases.

It was also a great opportunity to pay tribute to the people behind these achievements. From caregivers to veterinarians, the dedication of our teams ensures that the highest standards of animal welfare are maintained. Their work positions Mauritius as a leader in the global conversation around ethical and impactful scientific progress.

Can you walk us through LCL Cynologics' activities and projects?

At LCL Cynologics, our core activity is breeding,

with a primary focus on ensuring that our animals are always in optimal health and living conditions. Indeed, healthy animals are more valuable contributors to medical research, as their well-being directly enhances the quality and reliability of the research studies.

As such, we have joined forces with the Cyno Breeders Association (CBA), combining our expertise to further strengthen industry standards in animal care, ethics, and transparency.

In parallel, we are developing Cynvivo, our upcoming research platform. This initiative reflects our intention to further support biomedical research, while maintaining full alignment with international standards and scientific integrity.

Our mission is clear: to uphold the highest standards of care and to support research that advances science and improves lives globally.

HANZY MUNDIL,
BUSINESS DEVELOPMENT MANAGER, NOVEPRIM

“Mauritius Can Become Africa’s Biotech Gateway”



On the sidelines of the Primate Management Conference, Hanzzy Mundil, Business Development Manager of Noveprim, discussed Mauritius’s potential to become a regional centre for biomedical research and why ethical research, innovation, and global partnerships are key to shaping the island’s future economy.

Does the hosting of this international conference represent a significant milestone for Mauritius?

Absolutely. This conference is both a milestone and a starting point. For the first time, Mauritius is bringing together global experts to discuss biomedical research and animal welfare in a local context. It's an opportunity to showcase our capabilities, foster scientific exchanges, and position the country as a trusted, ethical partner for advanced research. We intend to make such gatherings a regular feature to strengthen collaborations and share best practices internationally.

Dr Melanie Graham's talk focused on diabetes – a condition highly prevalent in Mauritius. Does the ongoing research offer reasons for optimism?

Yes, and it's very encouraging. We are seeing breakthroughs in areas like stem cell therapy, regenerative medicine, and gene therapy. These innovations hold promise for chronic conditions such as diabetes, which affect a significant part of our population. Our ambition is that Mauritius not only benefits from these advances as a patient community, but also contributes as an active player in global research networks.

The President of the CBA, Yannick Hardy, highlighted a shared commitment to "Creating Healthier Lives." How does that resonate with your organisation?

It resonates perfectly. This is also the mission of Charles River Laboratories, our parent company. We are proud that over 80% of FDA-approved drugs in the past five years involved Charles River's expertise, including all COVID-19 vaccines. Having such a globally trusted partner in Mauritius is a strategic advantage. It means that when we talk about creating healthier lives, it's not a slogan, it's backed by real impact on patient health worldwide.

With traditional pillars of the Mauritian economy like textiles and tourism in relative decline, could research and innovation emerge as a future economic pillar?

Yes, we must innovate. Mauritius is at a crossroads in its economic development. We need to make the leap from a middle-income to a high-income



We are seeing breakthroughs in areas like stem cell therapy, regenerative medicine, and gene therapy.



nation. This transition will come through high value-added activities such as biotechnology, especially red biotech. Encouragingly, research and innovation featured prominently in the recent national budget, with the Prime Minister pledging dedicated funds across ministries to drive R&D. Biomedical research is particularly well-positioned to become a strategic pillar in this transformation. We already have strong collaborations with leading institutions in the United States and Europe, and these partnerships can serve as a solid foundation for growth. The government's vision aligns perfectly with this ambition: building a robust, globally competitive biotech ecosystem for Mauritius.

Could Mauritius play a leading role as a representative of African countries in the biotech sector?

Mauritius should embrace the Triple Helix model of innovation, as seen in countries like the United States, Singapore, and India. This approach fosters close collaboration between academia, the private sector, and policymakers, ideally through an apex body such as the Mauritius Institute of Biotechnology Limited (MIBL). Beyond breeding, our cynomolgus macaques are in high demand globally, creating a unique opportunity to develop preclinical research capabilities locally. Clinical research is already underway in Mauritius, and in other parts of Africa, so the foundations exist. By building a complete research pipeline – from fundamental studies to applied research – Mauritius can position itself as a critical link in the global biotechnology chain. Mauritius can become Africa's biotech gateway.

One unique trait of the Mauritian macaque is



These innovations hold promise for chronic conditions such as diabetes, which affect a significant part of our population.



its genetic profile. Could you explain why that matters?

Indeed. Their genetic profile is unique. Our primates are free from many pathogens and are highly genetically homogeneous. This is critical in research because it reduces variability and ensures more reliable data. That's why they have contributed to major medical breakthroughs – from COVID-19 vaccines to treatments for cancer and cardiovascular disease.

The Minister of Tertiary Education, Science and Research, Dr Kaviraj Sukon, made a clear appeal to global pharmaceutical companies to come to Mauritius. What's your reaction to this?

We strongly support the Minister's call and are already in discussions with several leading pharmaceutical companies. Mauritian cynomolgus macaques have played a pivotal role in the development of COVID-19 vaccines, cancer immunotherapies, and innovative treatments for severe asthma. Our ambition, now, is to attract more preclinical research to Mauritius in areas such as oncology, cardiovascular disease, and diabetes. However, achieving this vision requires a robust legal and regulatory framework aligned with international standards for the ethical use of animals in research. This includes clear guidelines on animal welfare and study protocols. Establishing this framework is critical for scientific credibility and global partnerships, and we hope to see it implemented swiftly.

Have you already had consultations with the authorities on this?

Yes, we've had extensive discussions and submitted several proposals to the government.

Could you share some key elements from your proposals?

Our proposals are designed to create an integrated biomedical ecosystem, with preclinical research as the foundation for future growth. As part of Charles River, which supports global pharma and biotech leaders to accelerate their research pipelines, we bring both expertise and a global network to Mauritius. A critical element is the development of a robust regulatory framework that meets international standards. Without such a framework, research cannot be published in peer-reviewed journals, which is essential for scientific credibility and global collaboration. Regulation is not just a legal requirement; it is the backbone of trust in biomedical research.

A recurring phrase at this conference has been "from care to cure." What does this mean in your context?

"Care" begins at our facilities: with the animals and the dedicated staff who look after them every day. But it doesn't stop there. At the end of the chain is a patient, someone in a hospital who needs treatment to survive or live better. The ethical care we provide to our primates and our teams is directly linked to the ultimate goal: curing diseases and saving human lives. In that sense, care and cure are inseparable.

What are your ambitions for Noveprim in this evolving landscape?

At Noveprim and Charles River, our ambition is to

move Mauritius beyond being a supplier of research models to becoming a true biotechnology hub. We plan to assist the government in developing this sector by leveraging our global network. We are in advanced discussions with universities and intend to establish a research laboratory in Mauritius to conduct part of our work locally. This will encourage knowledge transfer, foster innovation, and create opportunities for collaboration with leading researchers in the United States, India, and beyond. Ultimately, our goal is to attract new investment, nurture local talent, and strengthen cross-border research partnerships.

Has contact already been made with India?

Yes, absolutely. We are already in contact with several biotech companies in India to develop collaborative projects. These partnerships will create synergies in research and help position Mauritius as a regional hub for scientific innovation.

What have you learned this week from your interactions with American researchers?

The exchanges have been extremely insightful. We've learned a great deal about animal care practices in research laboratories internationally, and it is reassuring to see that Mauritian macaques are treated with the highest standards of welfare abroad. These conversations have also allowed us to compare best practices and explore ways to continue to align with global benchmarks.

Any final thoughts or messages?

As someone with a background in biochemistry and experience in research, I see that Mauritius has a unique opportunity to establish itself as a biotechnology hub, one that serves not only the island, but also the region, from Reunion to the African continent. This development will also help reverse the brain drain by creating high-value jobs that attract Mauritian scientists back home.

At Charles River, we are involved across the entire drug discovery and development pipeline. As a key piece of our commitment to the 3Rs (Replacement, Reduction, and Refinement of animals in research), we are committed to leading innovation in the development, validation and implementation of new approach methodologies (NAMs). NAMs have the potential to significantly reduce the use of animals in biopharmaceutical research. However, more research is needed to develop and validate these models across a range of diseases, different body tissues, and organs before they are accepted as valid and safe alternatives to animal models by international regulatory agencies.

We expect to advance the integration of NAMs into hybrid study designs where, supported by science, we will complement traditional in vivo methods with non-animal technologies. We believe a hybrid model will prove to be the best approach to ensure patient safety for regulated safety testing over the longer term.

While animal studies remain essential in certain cases, our ultimate goal is to innovate responsibly, balancing scientific progress with the highest ethical standards. Charles River's leadership in preclinical drug development – rooted in science and innovation, regulatory insights, and translational expertise – can help Mauritius develop a strong life sciences industry, one that ensures the country's critical role in delivering safer, more effective medicines to the patients who critically need them.

2023 EU-funded report

Mauritius considered as a potential regional research hub

In 2023, Mauritius evaluated the potential to transition from a global supplier of non-human primates (NHPs) to a regional service hub for preclinical and clinical research. The initiative was undertaken through a feasibility study funded by the European Union's Africa RISE (Reform for Investment and Sustainable Economies) programme.

Commissioned by the Ministry of Finance and Economic Development and the Mauritius Institute of Biotechnology (MIBL), the report was produced by consultancy firm Landell Mills in collaboration with Adam Smith Europe, Imani Development, and International Economics Consulting. The study assessed Mauritius's comparative advantages and institutional limitations in the biomedical sector and proposed a framework to attract investment, modernise regulation, and build scientific capacity.

Emphasis on Regulatory Reform and Strategic Positioning

At the launch of the study, Martin Seychell, Deputy Director General at the European Commission's Directorate-General for International Partnerships (DG INTPA), emphasised the importance of regulatory independence. He described the period as timely for Mauritius to enter a growing field shaped by technological change.

"This is the right time for the revolution in medicines, new technologies, monoclonal antibodies, etc. We are moving towards personalised medicine. It's therefore important to have a strong research angle to make sure that Mauritius can definitely act as a gateway to Africa," he stated.

Oskar Benedikt, EU Ambassador to Mauritius and Seychelles, supported the findings, noting that *"the feasibility study has demonstrated that the development of the pharma industry in Mauritius is both feasible and sustainable, provided it has a regional reach and complements other regional hubs."* He highlighted the need for *"a strong institutional, legal and regulatory framework"* to attract investment, foster research, and protect consumers.

Dr Rattan Kumar Gujadhur, the former Chief Executive Officer of MIBL, identified biotechnology as a key growth area for the country. *"It is the very next pillar of the economy,"* he said. Dr Gujadhur outlined a strategic vision for developing national capabilities in *"new chemical entity research, multi-centred clinical trials, and pre-clinical research"* to position Mauritius as a regional research hub.

Non-Human Primate Sector: An Established Base for Expansion

Mauritius remained the world's leading exporter of cynomolgus macaques for biomedical use, with exports valued at USD 48.7 million in 2021. These animals played a central role in global pharmaceutical research, particularly in vaccine development. The report confirmed that Mauritius's NHP industry adhered to international standards and served a well-established global clientele.

The study recommended that Mauritius expand beyond live animal exports by establishing certified facilities for preclinical studies involving non-human primates. Achieving this would require enhanced regulation, international accreditation, and the development of specialist training programmes in laboratory animal science and bioethics.

Preclinical Research: A Targeted Growth Opportunity

The report identified preclinical research as an area where Mauritius could generate more value, particularly given the post-pandemic increase in demand for reliable, ethical testing environments. It found that Mauritius was not positioned to compete on volume or pricing with large Asian markets, but could instead serve niche segments requiring high-quality standards.

Recommendations included:

- Establishing a Centre of Excellence in Preclinical and Primate Research, with Good Laboratory Practice (GLP) certification;
- Creating shared R&D infrastructure for public institutions and private contract research organisations (CROs); and
- Developing a transparent and efficient regulatory approval process for animal research.

Clinical Trials: Untapped Potential Hampered by Outdated Legislation

Mauritius was considered suitable for Phase II and III clinical trials, particularly in therapeutic areas such as diabetes and hypertension, which matched the region's epidemiological profile. However, international trial sponsors would require greater regulatory certainty, robust data governance, and effective participant protection.

Supporting Factors and Diaspora Engagement

The study identified several enablers, including:

- The presence of five CROs already operating in Mauritius;
- Favourable trade agreements and intellectual property protection; and
- A well-connected scientific diaspora occupying senior roles in international pharmaceutical firms and regulatory bodies.

The report proposed structured engagement with the diaspora to support technical assistance, foster research partnerships, and channel investment.

The 2023 Africa RISE feasibility study outlined a clear and evidence-based framework for Mauritius to broaden its role in biomedical research, moving from live primate exports to higher-value preclinical and clinical services. Realising this ambition will require substantial regulatory reform, institutional investment, and capacity-building.

bizweek.mu

BIZWEEK

Economy | Business | Finance



Director and Editor-in-Chief : Rama Krishna (Rudy) Veeramundar
Editor : Herrsha Bhoyroo | PR and Marketing Lead: Steeven Pumbien | Administration : Jacinta Bappaya
Contact us: Newsroom: bizweekmu@gmail.com | Marketing - steeven.bizweek@gmail.com
Address: 5th Floor. ICONEBENE -Zendö, Rue de L'institut, Ebène 72201, Mauritius
Mobile / WhatsApp: 52 53 45 75