



**PRIMATES**

60

NHPs used for new drugs

71,896

NHPs are used for research annually

\$39.5 mil

Primate Pre- Clinical Study Market

# What is STEREOTYPY?

- Repetitive behaviors noticed in primates
- Due to stress, social settings, and new stimulus
- It helps researchers develop better treatment strategies
- Helps improve primate's psychological health

## Dr. Collins, please save our chimps!

Cindy A. Buckmaster, PhD, CMAR, RLATG

In December 2011, Dr. Francis Collins, Director of the National Institutes of Health (NIH), accepted the Institute of Medicine's recommendation to restrict biomedical research with NIH-supported chimpanzees to include only that which is necessary to advance public health when there are no other means for doing so. A tidal wave of emotions swept through the research community following this announcement. Some of us were furious and despondent, concerned about the effects of this decision on our future medical needs. Others were cautiously relieved, grateful for the contributions these incredible animals have made to human and animal well-being over the years, and satisfied with the Institute of Medicine's well-considered recommendation to remove them from invasive studies that could be done without them. It has been nearly five years since Dr. Collins' announcement, and most of us have come to accept his decision. This is not surprising. The 3Rs and NIH Guidelines already require an absolute necessity for animals of any kind in biomedical studies. Chimpanzees are no different from any other animal in this regard. What makes chimpanzees special is that a panel of experts determined that we could continue our current quest for treatments and cures without them. If we do not truly need them, we should not use them. And Dr. Collins' decision to retire them from biomedical research was a good one. Animal rights groups from all over the country celebrated Dr. Collins' announcement, claiming a role in influencing his decision. I do not believe they played a role at all. Science is science, and this is not their strong suit. Nevertheless, they spun it as an animal rights accomplishment to the public to keep the money rolling in, because they had plans for our chimps.



Over the next few years the focus turned to removing chimpanzees from research institutions and relocating them to sanctuaries in the United States. Talk about doing so seemed to intensify last June when the

**No US sanctuary is staffed or equipped to care for chimpanzees like MDAKC, not one!**

US Fish and Wildlife Service classified all US chimpanzees, including those in research, as endangered. Five months later Dr. Collins announced that the NIH planned to send all NIH-supported chimps to US sanctuaries. In my view, this decision

of the United States, who convinced thousands of American citizens to write letters to the NIH urging them to remove chimpanzees from research settings as quickly as possible. In 2013, the CEO of the Society of the United States convinced his followers that their hard work, ing their effort by stating that carried forth by a NIH working group meant that "not one laboratory could be considered ethologically appropriate" for chimpanzees. This is not true. In fact, our chimps would fare better if allowed to retire in place. And these precious creatures have altered and died because the NIH allowed them to do so.

The MD Anderson Keeling (MDAKC) in Texas has been the best of the best, but not the best.

# Meet Our Team



**Ananth Dharmavaram (ad2379)**

**Amritanshi Saxena (as4289)**

**Asmodeus Wang (rw744)**

**Yatin Satija (ys2347)**

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# Meet Josh!

Age: 45 yo

Works at: **XYZ Organization**

He manages a team of **20 junior**  
scientists

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# Challenges Faced

Time spent in monitoring behavior  
of NHPs\*

Need for accurate data collection

Psychological health of NHPs\*

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*\*NHPs: Non Human Primates (Chimps, Macaques, Gorillas)*

# INTRODUCING STEREOTYPY-CAL



# Solution

## Challenge 2

Since there is flawless data collection, the accuracy for stereotypy detection is improved

2



## Challenge 3

With the accurate detection of stereotypy behaviors, researchers can take necessary measures to take care of the NHPs

1

## Challenge 1

It addresses the challenge of manual work by monitoring the NHPs 24/7

3



# DEMO





## Enclosure

Animal - 1



- Behavior Detected: **Rocking**
- Duration: **10:15:54**
- Start Date: **27th January 2025**

## Reasons for Stereotypy:

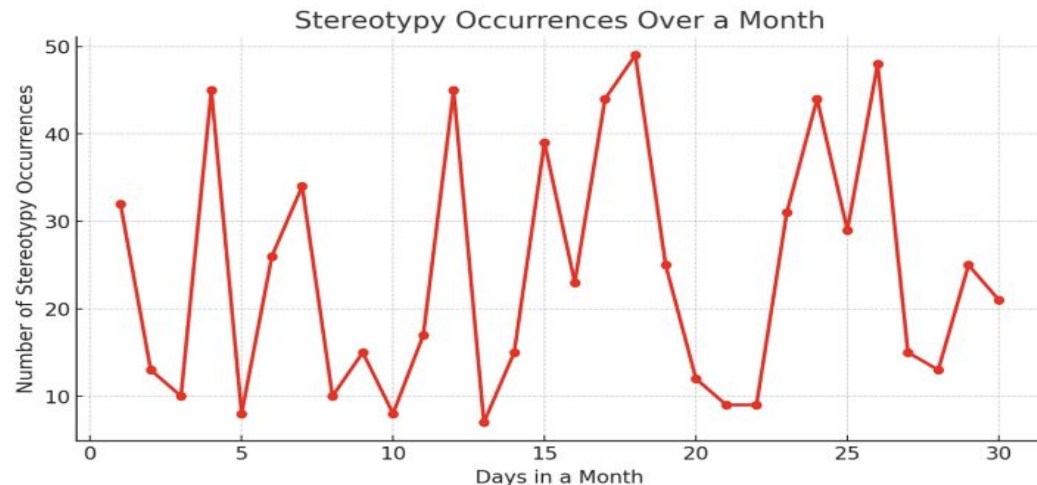
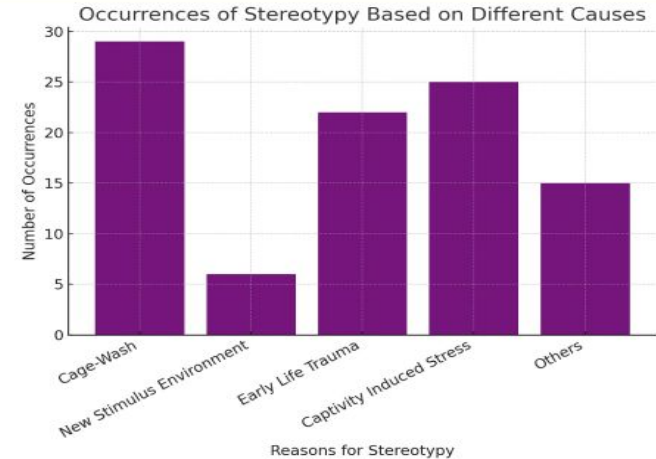
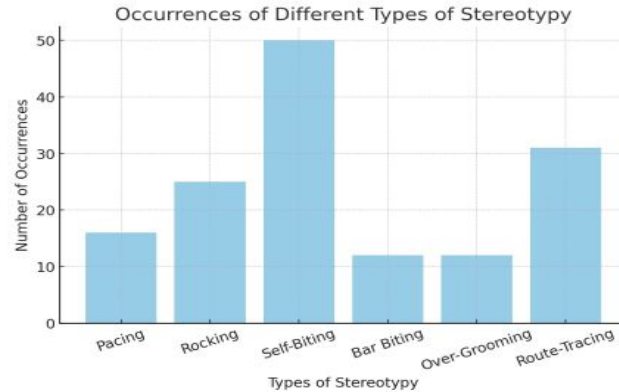
Environment

Social Issue

New Stimulus

Enter input

Ok



# Cost Savings

Cost of monitoring  
Stereotypy behaviour  
manually

**~ \$40,000 / yr**

Cost of monitoring  
after our solution is  
implemented

**~ \$6,000 / yr**

Cost  
Savings

**Upto**

**85%**



# Future Scope

Scaling the product to other species as well

Making the product available for vets in zoos

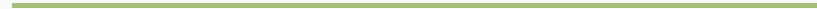
Increasing the different number of  
stereotypy behaviors detected by our model

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# Thank you!

By,  
Team Primates



# Appendix

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# System Design



# Cost Breakdown Structure

## Fixed Costs (Per unit):

Hardware setup (Camera + edge device) -  
**\$500**

## Additional cost to pay:

AI Model Development - **\$1500** (One -Time)

Software and Dashboard Development -  
**\$3000** (One-Time)

Regulatory and Legal Compliance: **\$1500**  
(One-Time)

## Model:

Subscription based: **\$6000**

- Maintenance Charges
  - Data Storage
  - Compliance Renewals and Training
  - Cloud Processing
  - Model retraining
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