## GENETIC MODIFICATION

The chicken to the egg

Carson Short – Andrew Cart – Hunter Kennedy



## DNA – The Basis

The "instructions" for the human body. It is what makes you exist and <u>unique</u> as a person.

Your "code" that describes the various descriptions of you is the combination of chemicals in a double helix of *TACG* to give the iconic look we know of DNA as.

TACG (Thymine, adenine, cytosine, and guanine)



#### With DNA, there is the Alleles.

Formed and altered through every sequence, we are given our unique features. We categorize these into two variables:

Heterozygous (same alleles) Homozygous (differing)

#### Why Is This Said?

If you are wanting to replicate, bring back, or "change" something or someone, you will need to find the most similar strands of DNA to conduct the most out of ethical research. It is why this process is so precise and has taken so long.



### Dolly the Sheep



- "On July 5, 1996, <u>Dolly the sheep</u>—the first mammal to have been successfully cloned from an adult cell—is born at the Roslin Institute in Scotland."
- "Over the course of her short life, Dolly was mated to a male sheep named David and eventually gave birth to four lambs.

# Genetic similarities between birds and dinosaurs

- It is proven that all birds are directly descended from theropod dinosaurs.
- These common ancestors of birds are said to live approximately 150 million years ago



## THE IMPORTANCE OF THE CHICKEN

The chicken is important to society in that it produces one third of all animal protein, and that it is one of the most intensively studied bird species.



#### Eugenics ~ Good Creation in Greek

- "Historically, eugenics encouraged people of socalled healthy, "superior" stock to reproduce and discouraged reproduction of the physically or mentally challenged"
- "It aims to reduce human suffering by "breeding out" disease, disabilities and so-called undesirable characteristics from the human population."



SCIENTISTS HAVE CONSIDERED AND TRIED TO PROCESS ACTUAL CONVERSIONS FOR ONE ANIMAL TO TURN INTO ANOTHER. WE KNOW THIS. BUT.

#### "METHYLATION"

THE CHEMICAL PROCESS OF MOVING DNA).

WE CANNOT JUST BRING BACK ANY ANIMAL OF OUR CHOOSING OTHERWISE WE WOULD'VE NEVER HAD THE CONCEPT OF EXTINCTION.

THERE IS THE SMALLEST PERCENTILE OF SUCCESS; BUT THE FACTOR REMAINS IS THAT IT EXISTS.



### Chickenosaurus?

- There have been experiments to manipulate chicken DNA with the purpose of bringing back dinosaurs
- These experiments have been somewhat successful
- Experimental embryos developed snouts similar to dinosaurs but were unable to hatch



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"Some Scientists looked at animal cloning as a possible way to preserve endangered species. On the other hand, detractors saw the new cloning technology as potentially unsafe and unethical, especially when it was applied to what many saw as the logical next step: Human cloning"



## Better Methylation? Use an **Epigenetic!**

Behaviors

The involvement in environment(s)

Body composition.

#### Through good, there is also bad.

Sporadic diseases, illnesses, fatalities. Research involves tests and tests bring failure. The chance of failure almost always happens as obstacles appear. It is what makes this go on for so long and why research has gone for countless years without its ideal success (dinosaur).

#### Citations

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- 6. "Technical Update: Summary Analysis of the Genetic Sequence of a Highly Pathogenic Avian Influenza A(H5N1) Virus Identified in a Human in Michigan." *Centers for Disease Control and Prevention*, Centers for Disease Control and Prevention, 24 May 2024, <u>www.cdc.gov/bird-flu/spotlights/h5n1-technical-update-052524.html</u>.