

Website Showdown

Introduction

Genetic engineering is the alteration of an organism's genetic material to introduce desired characteristics or modify existing ones. In the context of health care, this technology offers the potential for treating and preventing a wide range of diseases, including genetic disorders, cancer, and infectious infections. Furthermore, it has the potential to boost studies on drugs, personalize medicine, and revolutionize diagnostic techniques.

Through this website is designed for STAI 2023, based on the principle "Unlocking Knowledge , One Click at a Time", we hope to provide insight into the interesting area of genetic engineering in health care, highlighting its uses, benefits, ethical considerations, and future potential. This website contains the most recent scientific advances, success stories, and problems in this quickly evolving subject. So, let us begin on this adventure together and explore how genetic engineering has the potential to revolutionize the future of medicine.

As discussed by MACER, D. R. J. "*Genetic engineering has been compared with nuclear science since both confer power on humans for which they are psychologically and morally unprepared.*"

This website is dedicated to the fascinating area of Genetic Engineering in Health care. It is an exciting adventure into the world of genetics, where science and creativity are combining to change the way we understand , diagnose , and treat diseases . We aim to give readers a comprehensive and readily available resource to investigate the innovative advances , ethical concerns , and real -world applications of genetic engineering in health care.

The Team of 3

We are a **team of three** whose responsibilities varies from **designing, gathering content to actually coding the website**. All members of the team had an **equal participation in the development of the website**.

Bryan - Web Developer

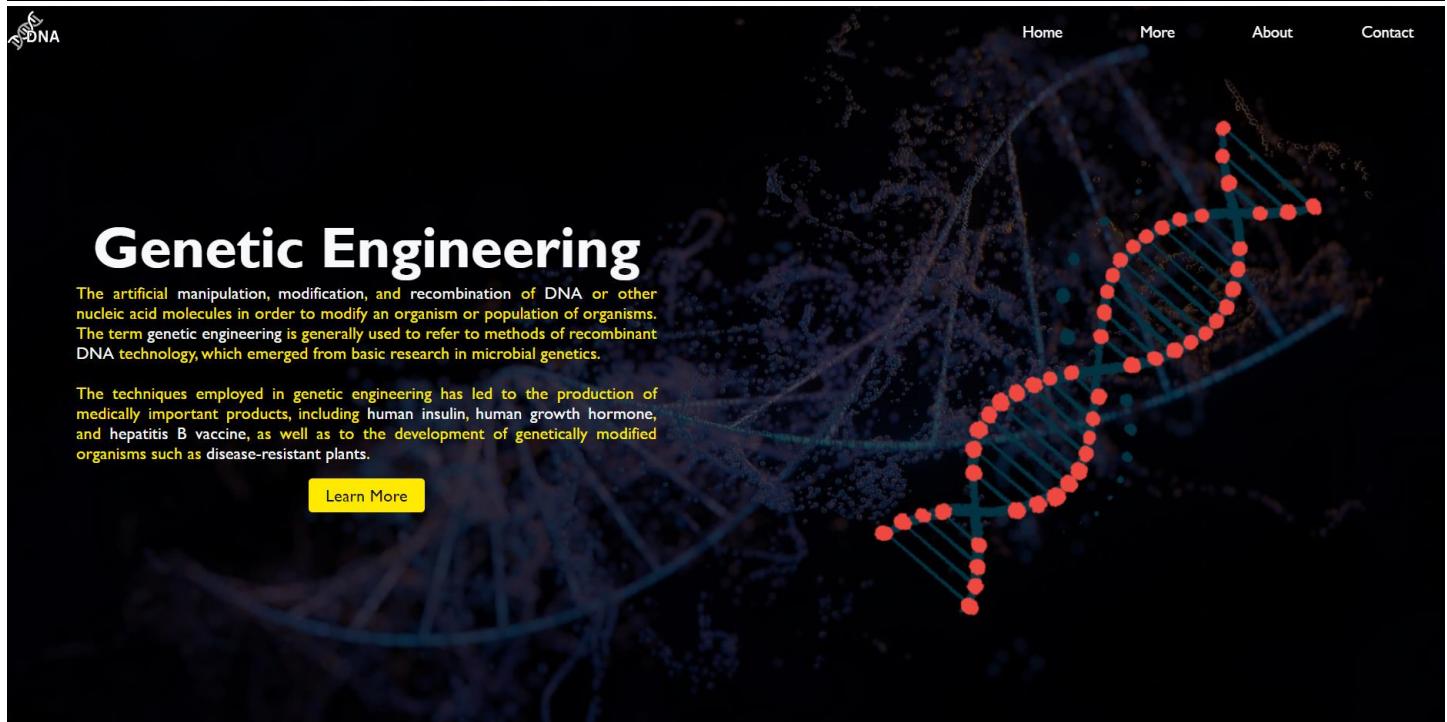
Dharshan - Designer

Harshad - Content Creation

GitHub Pages link to view the website: <https://bryanpy.github.io/GeneticEngineering/Pages/home.html>

Pages:

Home



1.4B+

How will it affect Health Care

It will be a new revolution in the health industry, new cures and personalized medicine will be available. It will play a major role in treating cancer. It will be able to save BILLIONS of people from various diseases and can reduce ageing drastically.

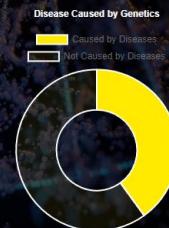
Gene therapy is a promising field that uses genetic engineering techniques to introduce or modify genes in a person's cells. It holds potential for treating genetic disorders by replacing or correcting faulty genes.

Disease caused by Genetics

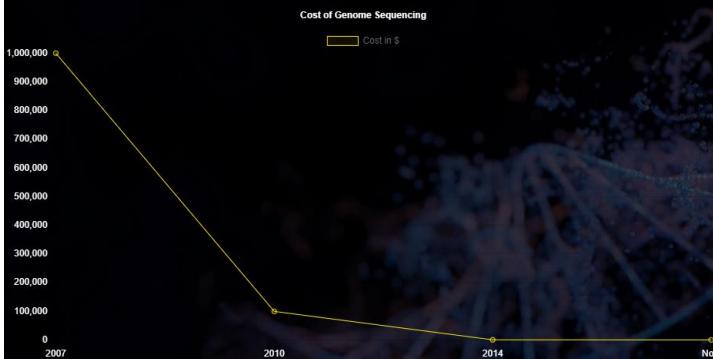
Nearly 40 percent of the diseases in the study (225 of 560) had a genetic component, while 25 percent (138) were driven at least in part by factors stemming from sharing the same household, social influences, and the like.

Cognitive disorders demonstrated the greatest degree of heritability — four out of five diseases showed a genetic component — while connective tissue diseases had the lowest degree of genetic influence.

We will be possible in the future to cure all genetic diseases in the future due to the advancements in this field.



40%



Genome Sequencing and its advancement

A laboratory method that is used to determine the entire genetic makeup of a specific organism or cell type. This method can be used to find changes in areas of the genome. These changes may help scientists understand how specific diseases, such as cancer, form.

It's price has been steadily decreasing for the past few decades. It used to take a 1,000,000\$ and 3 years to sequence the genome of an organism during the 2000s but now, new technology enable us to sequence the genome of an organism in less than 600\$ and 2 weeks.

CRISPR The new revolution

The CRISPR-Cas9 system has generated a lot of excitement in the scientific community because it is faster, cheaper, more accurate, and more efficient than other genome editing methods

Its a new technology that enables gene editing to be available in a really cheaper price compared to the traditional methods

[Learn More](#)

Watch on YouTube Share

Genetic Engineering Will Change Everything Forever...

DESIGNER BABIES



GMO Genetically Modified Organism

Genetically modified plants and animals are available in the market today. Which make them bigger and more nutritious, for example tomatoes previously were the size of cherry but thanks to selective breeding and genetic advancement we have tomatoes, the size of a coconut.

But it has been a huge controversy whether its is just as healthy as the normal once, but it is scientifically proven that is not any less nutritious in fact it might just be more nutritious.

[Learn More](#)

Donate Now and make a difference

Help us make a difference, you can be an active part of the development towards genetic engineering. Genetics is the future of upcoming generations, which will provide them an reliable technology to reduce deaths due to several dangerous diseases. We will also be able to cure cancer that will be incurable with the help of traditional methods.

Why donate?

Your support is an investment in our shared future. Help us sustain GSA career programs and conferences and develop new ways to serve our research community.

[Donate Now](#)



Application of Genetics

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The Application of genetics

1. Gene therapy
2. Production of edible vaccines
3. Cure for Cancer
4. Develop GMO crops
5. Cloning

Gene therapy

Genetic Therapies are approaches that treat genetic disorders by providing new DNA to certain cells or correcting the DNA. Gene transfer approaches, also called gene addition, restore the missing function of a faulty or missing gene by adding a new gene to affected cells.



In the future, genetic therapies may be used to prevent, treat, or cure certain inherited disorders, such as cystic fibrosis, alpha-1 antitrypsin deficiency, hemophilia, beta thalassemia, and sickle cell disease. They also may be used to treat cancers or infections, including HIV.

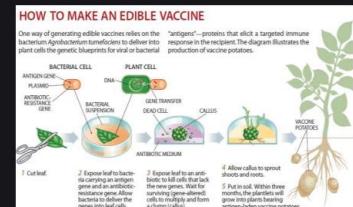
[Know about Gene Therapy](#)[Home](#)[More](#)[About](#)[Contact](#)

The Application of genetics

1. Gene therapy
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Production of edible vaccines

All vaccines are genetically modified in a way. A gene may be programmed to produce an antiviral protein in a bacterial cell. Once sealed into the DNA, the bacteria is now effectively re-programmed to replicate this new antiviral protein.



Creating edible vaccines involves the genetic engineering approach for the introduction of selected desired genes into plants and then inducing these altered plants to manufacture the encoded proteins. This process is known as "transformation" and the plants altered with new characteristics are called "transgenic plants".

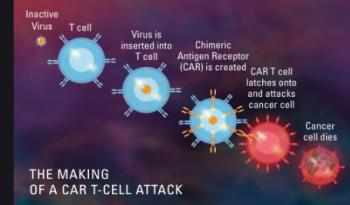
Cure for Cancer

The idea here is generally to take immune cells from a person with cancer, edit them to be better at attacking the cancer and replace them in the body. With the power of genetics we can programme Killer T cell to be more active and make them active cancer hunters. This will help eradicate cancer from once body.

The Application

of genetics

1. Gene therapy
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5. Cloning



Gene therapy is a way of treating or preventing disease by altering the genetic instructions within an individual's cells.

Currently the cure for cancer using Genetic Engineering the more powerful tool available to mankind to solve medical diseases, is under development and with the development of CRISPR-Cas9 and other technologies. We will be able to cure cancer in the future in no time.

Develop GMO crops

Most of the GMO crops grown today were developed to help farmers prevent crop loss. The three most common traits found in GMO crops are:



For GMO crops that are resistant to insect damage, farmers can apply fewer spray pesticides to protect the crops. GMO crops that are tolerant to herbicides help farmers control weeds without damaging the crops.

- Resistance to insect damage
- Tolerance to herbicides
- Resistance to plant viruses

[Check out the Glory of GMO](#)

The Application

of genetics

1. Gene therapy
2. Production of edible vaccines
3. Cure for Cancer
4. Develop GMO crops
5. Cloning

Cloning

Cloning allows for the creation of multiple copies of genes, expression of genes, and study of specific genes. To get the DNA fragment into a bacterial cell in a form that will be copied or expressed, the fragment is first inserted into a plasmid.

The Application

of genetics

1. Gene therapy
2. Production of edible vaccines
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5. Cloning



In 1996, Scottish scientists cloned the first animal, a sheep they named Dolly. She was cloned using an udder cell taken from an adult sheep. Since then, scientists have cloned cows, cats, deer, horses, and rabbits.

[Check out the first cloned animal DOLLY](#)

Risks of Genetics

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The Risk Involved in Genetic Engineering

1. Environmental Impact
2. Health Risks
3. Genetic Diversity Reduction
4. Socioeconomic Issues
5. Gene Flow
6. Lack of Public Trust

Environmental Impact

Genetically modified organisms (GMOs) released into the environment can potentially interact with native species, leading to ecological disruption.



For example, GMO crops may crossbreed with wild relatives, creating hybrid plants that have unpredictable characteristics.

[Environmental Impact Due to Genetics](#)

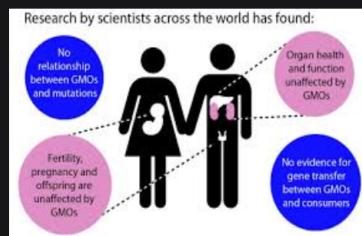
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The Risk Involved in Genetic Engineering

1. Environmental Impact
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Health Risks

There is concern about the potential health risks associated with consuming GMOs. While extensive safety testing is conducted, some worry about long-term effects on human health, including allergenicity and unintended side effects.



The first is that genetic engineering can transfer allergens from foods to which people know they are allergic, to foods that they think are safe.

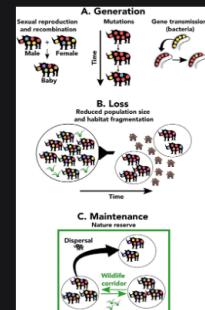
Genetic Diversity Reduction

The widespread adoption of genetically modified crops could reduce genetic diversity within crop species. This reduced diversity may make crops more susceptible to diseases, pests, and environmental changes.

The Risk Involved

in Genetic Engineering

1. Environmental Impact
2. Health Risks
- 3. Genetic Diversity Reduction**
4. Socioeconomic Issues
5. Gene Flow
6. Lack of Public Trust



Gene therapy is a way of treating or preventing disease by altering the genetic instructions within an individual's cells.

Low genetic diversity means that there is a limited variety of alleles for genes within that species and so there are not many differences between individuals.

The Risk Involved

in Genetic Engineering

1. Environmental Impact
2. Health Risks
- 3. Genetic Diversity Reduction**
4. Socioeconomic Issues
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Socioeconomic Issues

Genetic engineering can be expensive, potentially leading to increased inequality in access to its benefits. Small farmers and developing countries may be at a disadvantage if they cannot afford genetically modified seeds or technologies.

Adoption of GMOs into seed markets could lead to farmer dependence on corporations that control the price and supply of seeds. The cost of switching from traditional to genetically modified seeds could also lead to increased inequality among farmers, as poorer smallholders will be left behind by their competitors.

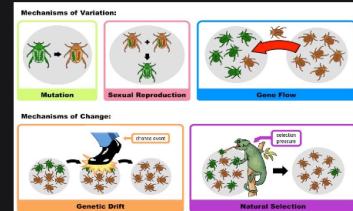
Gene Flow

Genetic modifications can potentially spread to related species through natural processes like pollination and reproduction. This gene flow can lead to the unintentional alteration of non-target organisms.

The Risk Involved

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Gene flow is the transfer of genetic material from one population to another. Gene flow can take place between two populations of the same species through migration, and is mediated by reproduction and vertical gene transfer from parent to offspring.

[Look at the risks of Gene Flow](#)

Lack of Public Trust

Some segments of the public have concerns about the transparency and trustworthiness of companies and regulatory agencies involved in genetic engineering, leading to skepticism and opposition to GMOs.

The Risk Involved

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While 46% of people indicated that they agreed with the statement that 'genome editing in general carries too many risks to be used to tackle global challenges', the public is very positive about its use in specific areas such as human health.

The Future of Genetic Engineering

The Future Endless Possibilities

Imagine we lived in the 1980s and were told that computers would take over the world, that computers would handle pretty much everything from shopping, dating and the stock market and we would have a hand held device orders of magnitude more powerful than the super computers of that time. It seems impossible, but it became reality and became normal we don't even think about it.

We are in a similar stage with genetic engineering now. The new technology CRISPR (Clustered Regularly Interspaced Short Palindromic Repeats) has the ability to change what we consider normal forever. Soon we will be able to engineer babies with selected traits like smartness and strength on our will. It will be so consistent that it will be normal and there will be no risks involved. Future athletic champions will for sure be genetically modified in some way to help them play better in their games.



CRISPR-Cas9

CRISPR-Cas9 The Game Changer

It has a wide spread application in healthcare in curing diseases and fight cancer. In 2015, scientist used CRISPR to cut HIV virus out of the living cell out of a patients in a lab. Simply just a year later a larger scale project was held with rats with HIV present in 99% of their cells. After injecting CRISPR in the rat's tails, they were able to remove over 50% of the virus from the rat's body. In future it may be possible to completely cure HIV for good.

The guide RNA is designed to find and bind to a specific sequence in the DNA. The guide RNA has RNA bases? that are complementary? to those of the target DNA sequence in the genome. This means that, at least in theory, the guide RNA will only bind to the target sequence and no other regions of the genome.

The Cas9 follows the guide RNA to the same location in the DNA sequence and makes a cut across both strands of the DNA.



Success Stories of Genetic Engineering

Cloning (Dolly)

Dolly was important because she was the first mammal to be cloned from an adult cell. Her birth proved that specialised cells could be used to create an exact copy of the animal they came from.

Success Stories

1. Cloning (Dolly)
2. Wild Tomatoes
3. Synthetic Human Growth Hormone
4. Glow-in-the-Dark Cats
5. Golden Rice



Dolly as a lamb with her Scottish Blackface surrogate mother. Photo courtesy of the Roslin Institute, University of Edinburgh, UK.



Dolly with Professor Sir Ian Wilmut, who led the research which produced her. Photo courtesy of the Roslin Institute, University of Edinburgh, UK.

Dolly started her life as a single cell in a test tube taken from the mammary gland of a Finn Dorset sheep and an egg cell from a Scottish Blackface Sheep. Once normal development was confirmed in a lab at six days, the embryo was transferred into a surrogate mother. Dolly was then born on 5 July 1996 and named after the country western singer Dolly Parton.

[Know more about Dolly](#)

Wild Tomatoes

The tomato's path from wild plant to household staple is much more complex than researchers have long thought. For many years, scientists believed that humans domesticated the tomato in two major phases. First, native people in South America cultivated blueberry-sized wild tomatoes about 7,000 years ago to breed a plant with a cherry-sized fruit. Later, people in Mesoamerica bred this intermediate group further to form the large cultivated tomatoes that we eat today.

Success Stories

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A ripe one grown from one of Lincoln's ripe ones compared to a modern one.
Credit: Reddit/Mildly Interesting

This research has direct implications for crop improvement. For example, some intermediate tomato groups have high levels of glucose, which makes the fruit sweeter. Breeders could use those plants to make cultivated tomatoes more attractive to consumers.

[Learn about wild tomatoes](#)

Success Stories

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Synthetic Human Growth Hormone

The U.S. Food and Drug Administration (FDA) has approved the synthetic form of HGH for the treatment of certain conditions. The synthetic form of HGH is available only by prescription and is injected. In children, healthcare providers prescribe HGH to treat:

- Growth hormone deficiency.
- Conditions that cause short stature, such as chronic kidney disease, Turner syndrome and Prader-Willi syndrome.

In the future, genetic therapies may be used to prevent, treat, or cure certain inherited disorders, such as cystic fibrosis, alpha-1 antitrypsin deficiency, hemophilia, beta thalassemia, and sickle cell disease. They also may be used to treat cancers or infections, including HIV.

Success Stories

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Glow-in-the-Dark Cats

Cat owners might find a glow-in-the-dark kitty to be fairly useful—you'll never trip over the cat at night again—but the Mayo Clinic scientists who created this glowing cat had a bigger goal in mind: fighting AIDS.



The Glow-In-The-Dark Kitty

The substance that makes the cat glow is a version of the green fluorescent protein that lights up the crystal jelly, a type of jellyfish that lives off the West Coast of the United States.

researchers have made many glowing animals, including pigs, mice, dogs, even fish you can buy in the pet store.

Other glow in the dark animals

Golden Rice Project

Golden rice is genetically modified to produce beta-carotene, which is not normally present in rice. Beta-carotene is converted into vitamin A when metabolized by the human body. We need vitamin A for healthier skin, immune systems, and vision.

Success Stories

1. Cloning (Dolly)
2. Wild Tomatoes
3. Synthetic Human Growth Hormone
4. Glow-in-the-Dark Cats
5. Golden Rice



Golden Rice is an enhanced version of ordinary rice designed to handle a specific nutrition issue, without any additional cost or difference in taste.

Currently, there is no cultivation or commercialisation of Golden Rice in India. However, a version of Golden Rice, called GR2E1 has got the necessary approvals related to its regulatory clearance in the Philippines and it is being cultivated in huge areas in that country.

The True Story of the Genetically Modified Superfood That Almost Saved Millions

About The Team

About us

Well hello nice to see you here, this is an project created for the **STA1 2023** competition. This website is created on the topic **Genetic Engineering in healthcare**. It is designed on the vision **Show less gain more**. We would love to spread the future vission we have in mind about genetic modification and its effects in our lives and the health care.

We are a team of **three** whose responsibilities varies from **designing, gathering content to actually coding the website**. All members of the team had an equal participation in the development of the website.



Bryan Joe
Web Developer



Dharshanan
Designer



Harshad
Content Creation

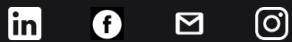
Contact US page that will send an Email Automatically

[Home](#)[More](#)[About](#)[Contact](#)

Contact Us

Well hello, this is an project created for the 2023 STA! competition. Any feedback or correction to the website is highly appreciated. It would be very helpful if you can leave an honest review about the website and its contents.

This will help the website in its improvement and development which in turn will make it feel more professional. And also any other relevant questions can be asked regarding this topic.



Enter Info

Enter your name	Enter subject
Enter valid email id	Enter valid phone no
Enter your message	

Source Code:

GitHub Link with all the Files: <https://github.com/bryanpy/GeneticEngineering>

GitHub Pages link to view the website: <https://bryanpy.github.io/GeneticEngineering/Pages/home.html>

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  <link rel="stylesheet" href="../Styles/home.css">
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  <script src="https://cdn.jsdelivr.net/npm/chartjs-plugin-deferred@2.0.0/dist/chartjs-plugin-deferred.min.js"></script>
  <title>Home</title>
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</head>

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      <div class="dropdown">
        <button class="header-buttons">More</button>
        <div class="dropdown-content">
          <a onclick="window.location = './More/application.html'">Application</a>
          <a onclick="window.location = './More/risk.html'">The Risk</a>
          <a onclick="window.location = './More/future.html'">The Future</a>
          <a onclick="window.location = './More/crispr.html'">CRISPR</a>
          <a onclick="window.location = './More/stories.html'">Stories</a>
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    </div>
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```

```

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</div>
<div id="cover">
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    <div></div>
    <div id="front-title-container">
      <h1>Genetic Engineering</h1>
      <h3>in Health care</h3>
      <p>The <b>future</b> of <b>health care</b> and <b>gene modification</b> is Here</p>
      <button id="front-learnmore-button" onclick="window.location = '#GeneEng-main'">Learn More</button>
    </div>
    <h5>►</h5>
  </div>
</div>
<hr>
<div class="screen-container" >
  <div class="content-seperator" id="GeneEng-main">
    <h1>Genetic Engineering</h1>
    <p>
      <!-- Genetic engineering is a field of biotechnology that involves manipulating the
      genetic material <span class="white">(DNA)</span> of organisms to alter their traits or characteristics.
      It allows scientists to introduce or modify specific genes in an organism's genome,
      leading to changes in its <span class="white">phenotype</span> (observable traits) or function. This process can
      have applications in various areas, including agriculture, medicine, and industry, with
      the aim of improving crop yields, developing <span class="white">new treatments for diseases</span>, or creating
      novel biological products. -->
    </p>
  </div>
</div>

```

The artificial manipulation, modification, and recombination of DNA or other nucleic acid molecules in order to modify an organism or population of organisms. The term genetic engineering

is generally used to refer to methods of recombinant DNA technology, which emerged from basic research in microbial genetics.

 The techniques employed in genetic engineering has led to the production of medically important products, including human insulin, human growth hormone, and hepatitis B vaccine, as well as to the development

of genetically modified organisms such as disease-resistant plants.

</p>
<button class="learnmore-button" onclick="window.location = './More/crispr.html'">Learn More</button>
</div>

```
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</div>
</div>
<!-- <hr> -->
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    </div>
    <div class="content-seperator">
        <h1>How will it affect <br>Health Care</h1>
        <p>
            It will be a new revolution in the health industry, new cures and <span class="white">personalized medicine</span> will be available. It will play a major role in treating <span class="white">cancer</span>. It will be able to save <span class="white">BILLIONS</span> of people from various diseases and can reduce ageing drastically. <br><br>
            Gene therapy is a promising field that uses <span class="white">genetic engineering</span> techniques to introduce or <span class="white">modify genes</span> in a person's cells. It holds potential for treating genetic disorders by replacing or correcting faulty genes.
        </p>
    </div>
</div>
<!-- <hr> -->
<div class="screen-container">
    <div class="content-seperator">
        <h1>Disease caused by Genetics </h1>
        <p>
            Nearly <span class="white">40 percent</span> of the diseases in the study (225 of 560) had a <span class="white">genetic component</span>, while 25 percent (138) were driven at least in part by factors stemming from sharing the same household, social influences, and the like.<br><br>
            <span class="white">Cognitive disorders</span> demonstrated the greatest degree of heritability — <span class="white">four out of five diseases </span> showed a genetic component — while <span class="white">connective tissue</span> diseases had the lowest degree of genetic influence.
        <br><br>
            We will be possible in the future to cure all <span class="white">genetic diseases</span> in the future due to the advancements in this field.
        </p>
    </div>
    <div class="content-seperator" style="display:flex; justify-content: center; align-items: center; flex-direction: row;">
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</div>
</div>
<!-- <hr> -->
<div class="screen-container">

<div class="content-seperator" style="display:flex; justify-content: center; align-items: center;">
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</div>
<div class="content-seperator">
    <h1>Genome Sequencing</h1>
    <h3>and its advancement</h3>
    <p>
        A <span class="white">laboratory</span> method that is used to determine the entire <span class="white">genetic makeup</span> of a specific
        <span class="white">organism</span> or cell type. This method can be used to find changes in areas of the genome.
        These changes may help <span class="white">scientists</span> understand how specific <span class="white">diseases</span>, such as cancer, form.
    <br><br>
        It's price has been steadily <span class="white">decreasing</span> for the past few decades. It used to take a
        <span class="white">1,000,000$ and 3 years</span> to sequence the genome of an organism during the 2000s but
        now, new technology enable us to sequence the genome of an organism in less than <b><span class="white" style="font-size: 1.3vw;">600$ and 2 weeks</span></b>.
    </p>
</div>
</div>
<div class="screen-container">
    <div class="content-seperator" >
        <h1>CRISPR</h1>
        <h3>The new revolution</h3>
        <p>
            The <span class="white">CRISPR-Cas9</span> system has generated a lot of excitement in the scientific community
            because it is <span class="white">faster, cheaper, more accurate</span>, and more <span class="white">efficient</span> than other genome
            editing methods
        <br><br>
            Its a new technology that enables gene editing to be available in a really <span class="white">cheaper</span> price
            compared to the traditional methods
        </p>
        <button class="learnmore-button" onclick="window.location = './More/crispr.html'">Learn More</button>
    </div>
</div>
```

```
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<div class="screen-container">
  <div class="content-seperator" style="display:flex; justify-content: center; align-items: center; padding: 30px;">
    <h1>Hopes</h1>
    <h3>for genetic testing</h3>
    <div style="display:flex;align-items: center;">
      
      <span class="list-item">If you know you have a genetic disorder, you might be able to get suitable treatment, or act
in a way that will reduce the chance of the disease developing.</span>
    </div>
    <br><br>
    <div style="display:flex;align-items: center;">
      
      <span class="list-item">Effective preventive treatment could reduce costs to health services. We will also be able to
provide personalized medicines depending on the patients</span>
    </div>
    <br><br>
    <div style="display:flex;align-items: center;">
      
      <span class="list-item">Even if there is no treatment, accessing information about your future health can help you
make decisions about your future, including whether or not to have children.</span>
    </div>
    <!-- <button class="learnmore-button" onclick="window.location = './More/crispr.html'">Learn More</button> -->
  </div>
  <div class="content-seperator" style="display:flex; justify-content: center; align-items: center; padding: 40px 30px;">
    <h1>Concerns</h1>
    <h3>about genetic testing</h3>
    <div style="display:flex;align-items: center;">
      
      <span class="list-item">If your genetic data became available to third parties, such as insurance providers, they
might offer you a reduced level of service as a result.</span>
    </div>
  </div>
</div>
```

```
<br><br>
<div style="display:flex;align-items: center;">
    
        <span class="list-item">The cost of genetic testing could take resources away from other parts of the NHS(National
Health Service).</span>
    </div>
    <br><br>
    <div style="display:flex;align-items: center;">
        
        <span class="list-item">Being told that you or a family member is at risk of a genetic disorder can affect relationships
and cause anxiety.</span>
    </div>

    <!-- <button class="learnmore-button" onclick="window.location = './More/crispr.html'">Learn More</button> -->
</div>
</div>
<div class="screen-container">
    <div class="content-seperator" style="display:flex; justify-content: center; align-items: center; padding: 30px;">
        <iframe width="559" height="315" class="youtube-video"
src="https://www.youtube.com/embed/7TmcXYp8xu4"></iframe>
    </div>
    <div class="content-seperator">
        <h1>GMO</h1>
        <h3>Genetically Modified Organism</h3>
        <p>
            <span class="white">Genetically modified</span> plants and animals are available in the market today. Which make
them bigger and more <span class="white">nutritious</span>, for example <span class="white">tomatoes</span> previously
were the size of <span class="white">cherry</span> but thanks to selective breeding and genetic advancement we have
tomatoes, the size of a <span class="white">coconut</span>.
        <br><br>
            But it has been a huge <span class="white">controversy</span> whether its is just as <span
class="white">healthy</span> as the normal once, but it is <span class="white">scientifically</span> proven that is not any
less <span class="white">nutritious</span> in fact it might just be <span class="white">more</span> nutritious.
        </p>
        <button class="learnmore-button" onclick="window.location =
'https://education.nationalgeographic.org/resource/genetically-modified-organisms/'>Learn More</button>
    </div>
</div>
<div class="screen-container">
```

```
<div class="content-seperator">
    <h1>Donate Now</h1>
    <h3>and make a difference</h3>
    <p>
        Help us make a <span class="white">difference</span>, you can be an active part of the <span
        class="white">development</span> towards <span class="white">genetic engineering</span>. Genetics is the future of
        upcoming generations, which will provide them an reliable technology to reduce deaths due to several <span
        class="white">dangerous diseases</span>. We will also be able to cure <span class="white">cancer</span> that will be
        incurable with te help of <span class="white">traditional methods</span>.
    <br><br>
    <span class="white">Why donate?</span> <br> Your <span class="white">support</span> is an investment in our
    shared <span class="white">future</span>. Help us sustain GSA career programs
    and conferences and develop new ways to serve our <span class="white">research community</span>.
</p>
<button class="learnmore-button" onclick="window.location = 'https://genetics-gsa.org/donate/'>Donate
Now</button>

</div>
<div class="content-seperator" style="display:flex; justify-content: center; align-items: center;">
    
</div>
</div>
<script>
    const lineChart = document.getElementById('cost-chart');
    let lineChartCreated = false
    let lineInView = false;
    const pieChart = document.getElementById('disease-chart');
    let pieChartCreated = false
    let pieInView = false;

    function isInViewport(el) {
        const rect = el.getBoundingClientRect();
        return (
            rect.top >= 0 &&
            rect.left >= 0 &&
            rect.bottom <= (window.innerHeight || document.documentElement.clientHeight) &&
            rect.right <= (window.innerWidth || document.documentElement.clientWidth)
        );
    }

    document.addEventListener('scroll',function() {
```

```

if (isInViewport(pieChart) && !pieChartCreated){
    console.log(!pieChartCreated);
    pieInView = true;
    new Chart(pieChart, {
        type: 'doughnut',
        data: {
            labels: [
                'Caused by Diseases',
                'Not Caused by Diseases',
            ],
            datasets: [{{
                label: 'My First Dataset',
                data: [40, 60],
                backgroundColor: [
                    '#ffea00',
                    '#ffea0011'
                ],
                hoverOffset: 4
            }}]
        },
        options: {
            // ... other options ...
            plugins: {
                title: {
                    display: true,
                    text: 'Disease Caused by Genetics',
                    color: "#fffff"
                },
                deferred: {
                    xOffset: 150, // defer until 150px of the canvas width are inside the viewport
                    yOffset: '50%', // defer until 50% of the canvas height are inside the viewport
                    delay: 500 // delay of 500 ms after the canvas is considered inside the viewport
                }
            }
        }
    });
    pieChartCreated = true
} else {
    pieInView = false;
}

if (isInViewport(lineChart) && !lineChartCreated){

```

```
console.log(!lineChartCreated);
lineInView = true;
new Chart(lineChart, {
    type: 'line',
    data: {
        labels: ["2007","2010","2014","Now"],
        datasets: [{

            label: 'Cost in $',
            data: [1000000, 100000, 1000, 600],
            borderWidth: 1,
            backgroundColor: '#ffea0011',
            borderColor:'#ffea00',
            color:'#ffea00',


        }]
    },
    options: {
        scales: {
            y: {
                beginAtZero: true,
                ticks: {
                    color: "#ffffff"
                }
            },
            x: {
                ticks: {
                    color: "#ffffff"
                }
            }
        },
        plugins: {
            title: {
                display: true,
                text: 'Cost of Genome Sequencing',
                color: "#ffffff"
            },
            deferred: {
                xOffset: 150, // defer until 150px of the canvas width are inside the viewport
                yOffset: '50%', // defer until 50% of the canvas height are inside the viewport
                delay: 500 // delay of 500 ms after the canvas is considered inside the viewport
            }
        }
    }
});
```

```

        },
    });
    lineChartCreated = true
} else {
    lineInView = false;
}
});

</script>
</body>
</html>

```

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <link rel="stylesheet" href="../Styles/common.css">
    <link rel="stylesheet" href="../Styles/contact.css">
    <script src="https://smtpjs.com/v3/smtp.js"></script>
    <script src="/Scripts/contactus.js"></script>
    <title>Contact</title>
    <link rel="icon" type="image/x-icon" href="/Assets/Favicon.png">

</head>
<body>
    <div id="header-container">
        
        <div id="header-button-container">
            <button class="header-buttons" onclick="window.location = './home.html'">Home</button>
            <!-- onclick="window.location = './more.html'" -->
            <div class="dropdown">
                <button class="header-buttons">More</button>
                <div class="dropdown-content">
                    <a onclick="window.location = './More/application.html'">Application</a>
                    <a onclick="window.location = './More/risk.html'">The Risk</a>
                    <a onclick="window.location = './More/future.html'">The Future</a>
                    <a onclick="window.location = './More/crispr.html'">CRISPR</a>
                    <a onclick="window.location = './More/stories.html'">Stories</a>
                </div>
            </div>
        </div>
    </div>

```

```
<button class="header-buttons" onclick="window.location = './about.html'">About</button>
<button class="header-buttons" onclick="window.location = './contact.html'">Contact</button>
</div>
</div>
<div id="screen-container">

<div class="content-seperator">
<h1>Contact Us</h1>
<p>
Well hello, this is an project created for the 2023 STAI competition.
Any feedback or correction to the website is highly appreciated. It would be very helpful
if you can leave an honest review about the website and its contents. <br><br>
This will help the website in its improvement and development which in turn will make it
feel more professional. And also any other relevant questions can be asked regarding this topic.
</p>
<div id="social-container">


    
    
</div>
</div>
<div class="content-seperator">
    <h1 style="color:var(--text);margin-left: 70px;font-size:2vw;">Enter Info</h1>
    <div class="h-container">
        <div class="v-container">
            <input type="text" placeholder="Enter your name" class="details-input" id="name">
            <input type="text" placeholder="Enter valid email id" class="details-input" id="email">
        </div>
        <div class="v-container">
            <input type="text" placeholder="Enter subject" class="details-input" id="subject">
            <input type="text" placeholder="Enter valid phone no" class="details-input" id="phone">
        </div>
        <div>
            <textarea id="message" type="text" placeholder="Enter your message" class="details-input details-input-wide" rows="6" ></textarea>
            <button id="submit-button" onclick="submit()">Submit</button>
        </div>
    </div>
</body>
</html>

```

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">

```

```
<link rel="preconnect" href="https://fonts.googleapis.com">
<link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
<link href="https://fonts.googleapis.com/css2?family=ADLaM+Display&display=swap" rel="stylesheet">
<link rel="preconnect" href="https://fonts.googleapis.com">
<link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
<link href="https://fonts.googleapis.com/css2?family=Varela+Round&display=swap" rel="stylesheet">
<link rel="stylesheet" href="/Styles/common.css">
<link rel="stylesheet" href="/Styles/more.css">

<link rel="icon" type="image/x-icon" href="/Assets/Favicon.png">
<!-- <link rel="stylesheet" href="/Styles/about.css" -->

<script src="/Scripts/more-content.js"></script>

<title>Application</title>

</head>
<body>
<div id="header-container">
  
  <div id="header-button-container">
    <button class="header-buttons" onclick="window.location = './home.html'">Home</button>
    <!-- onclick="window.location = './more.html'" -->
    <div class="dropdown">
      <button class="header-buttons">More</button>
      <div class="dropdown-content">
        <a onclick="window.location = './application.html'">Application</a>
        <a onclick="window.location = './risk.html'">The Risk</a>
        <a onclick="window.location = './future.html'">The Future</a>
        <a onclick="window.location = './crispr.html'">CRISPR</a>
        <a onclick="window.location = './stories.html'">Stories</a>
      </div>
    </div>
  </div>
  <button class="header-buttons" onclick="window.location = './about.html'">About</button>
  <button class="header-buttons" onclick="window.location = './contact.html'">Contact</button>
</div>
<div id="screen-container">
  <div class="content-seperator" id="content-selector-container" style="width: 40vw;">
```

```
<div style="display: flex;flex-direction: column;">
    <h1 id="Application-more">The Application</h1>
    <span class="sub-sub-heading">of genetics</span>
</div>
<div id="selection-container">
    <h3 class="selection" id="GeneTherapy-Selector" onclick="switchContent('GeneTherapy-Content','GeneTherapy-Selector')">1. Gene therapy</h3>
        <h3 class="selection" id="EdibleVaccines-Selector" onclick="switchContent('EdibleVaccines-Content','EdibleVaccines-Selector')">2. Production of edible vaccines</h3>
        <h3 class="selection" id="CureCancer-Selector" onclick="switchContent('CureCancer-Content','CureCancer-Selector')">3. Cure for Cancer</h3>
            <h3 class="selection" id="GMO-Selector" onclick="switchContent('GMO-Content','GMO-Selector')">4. Develop GMO crops</h3>
            <h3 class="selection" id="Cloning-Selector" onclick="switchContent('Cloning-Content','Cloning-Selector')">5. Cloning</h3>
        </div>
    </div>
<div class="content-seperator" id="more-content" style="width: 60vw;">
    <div class="more-content-container more-content-show" id="GeneTherapy-Content">
        <h2>Gene therapy</h2>
        <p>Genetic Therapies are approaches that treat genetic disorders by providing new DNA to certain cells or correcting the DNA. Gene transfer approaches, also called gene addition, restore the missing function of a faulty or missing gene by adding a new gene to affected cells.</p>
        
        <p>In the future, genetic therapies may be used to prevent, treat, or cure certain inherited disorders, such as cystic fibrosis, alpha-1 antitrypsin deficiency, hemophilia, beta thalassemia, and sickle cell disease. They also may be used to treat cancers or infections, including HIV.</p>
        <button class="learnmore-button" onclick="window.location.href='https://www.mayoclinic.org/tests-procedures/gene-therapy/about/pac-20384619?sscid=91k7_2any3'">Know about Gene Therapy</button>
    </div>
    <div class="more-content-container" id="EdibleVaccines-Content">
        <h2>Production of edible vaccines</h2>
        <p>All vaccines are genetically modified in a way. A gene may be programmed to produce an antiviral protein in a bacterial cell. Once sealed into the DNA, the bacteria is now effectively re-programmed to replicate this new antiviral protein.</p>
        <div style="display:flex;flex-direction: row; justify-content: space-between; margin: 30px 0px;">
            <iframe width="372.6" height="210" style="align-self: center; margin: 40px 0px;" src="https://www.youtube.com/embed/zBkVCpbNnkU"></iframe>
            <div style="display:flex;flex-direction: column;flex-wrap: wrap; width: 300px;justify-content: center;align-items: center;text-align: justify; margin: 30px 0px; margin-left: 40px;">
```


</div>

</div>

<p>Creating edible vaccines involves the genetic engineering approach for the introduction of selected desired genes into plants and then inducing these altered plants to manufacture the encoded proteins. This process is known as "transformation" and the plants altered with new characteristics are called "transgenic plants".</p>

</div>

<div class="more-content-container" id="CureCancer-Content">

<h2>Cure for Cancer</h2>

<p>The idea here is generally to take immune cells from a person with cancer, edit them to be better at attacking the cancer and replace them in the body.</p>

<div style="display:flex;flex-direction: column;flex-wrap: wrap;width: 300px;justify-content: center;align-items: center;text-align: justify; margin: 30px 0px;">

<h4 class="image-title" >Gene therapy is a way of treating or preventing disease by altering the genetic instructions within an individual's cells.</h4>

</div>

<p>With the power of genetics we can programme Killer T cell to be more active and make them active cancer hunters, This will help eradicate cancer from once body.</p>

</div>

<div class="more-content-container" id="GMO-Content">

<h2>Develop GMO crops</h2>

<p>

Most of the GMO crops grown today were developed to help farmers prevent crop loss. The three most common traits found in GMO crops are:

</p>

<div style="display:flex;flex-direction: column;flex-wrap: wrap;width: 300px;justify-content: center;align-items: center;text-align: justify; margin: 30px 0px;">

</div>

<p>

For GMO crops that are resistant to insect damage, farmers can apply fewer spray pesticides to protect the crops. GMO crops that are tolerant to herbicides help farmers control weeds without damaging the crops.

<ul style="color:var(-text);font-size: 1.3vw;margin:30px 0px 30px 30px">

Resistance to insect damage

Tolerance to herbicides

```

<li>Resistance to plant viruses</li>
</ul>
</p>
</div>
<div class="more-content-container" id="Cloning-Content">
<h2>Cloning</h2>
<p>
    Cloning allows for the creation of multiple copies of genes, expression of genes, and study of specific genes. To get the DNA fragment into a bacterial cell in a form that will be copied or expressed, the fragment is first inserted into a plasmid.
</p>
<div style="display:flex;flex-direction: column;flex-wrap: wrap; width: 300px; justify-content: center; align-items: center; text-align: justify; margin: 30px 0px;">
    
</div>
<p>
    In 1996, Scottish scientists cloned the first animal, a sheep they named Dolly. She was cloned using an udder cell taken from an adult sheep. Since then, scientists have cloned cows, cats, deer, horses, and rabbits.
</p>
<button class="learnmore-button" onclick="window.location.href='./stories.html'">Learn more about Dolly</button>
</div>
</div>
<!-- <iframe width="559" height="315" style="align-self: center; margin: 40px 0px;" src="https://www.youtube.com/embed/DIM38NIkWEo"></iframe> -->
</div>
</body>
</html>

```

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <link rel="stylesheet" href="/Styles/common.css">
    <link rel="stylesheet" href="/Styles/more.css">
    <!-- <link rel="stylesheet" href="/Styles/about.css"> -->

    <title>CRISPR</title>
    <link rel="icon" type="image/x-icon" href="/Assets/Favicon.png">

```

```

</head>
<body>

<div id="header-container">
    
    <div id="header-button-container">
        <button class="header-buttons" onclick="window.location = '../home.html'">Home</button>
        <!-- onclick="window.location = './more.html'" -->
        <div class="dropdown">
            <button class="header-buttons">More</button>
            <div class="dropdown-content">
                <a onclick="window.location = './application.html'">Application</a>
                <a onclick="window.location = './risk.html'">The Risk</a>
                <a onclick="window.location = './future.html'">The Future</a>
                <a onclick="window.location = './crispr.html'">CRISPR</a>
                <a onclick="window.location = './stories.html'">Stories</a>
            </div>
        </div>
    </div>

    <button class="header-buttons" onclick="window.location = '../about.html'">About</button>
    <button class="header-buttons" onclick="window.location = '../contact.html'">Contact</button>
</div>
</div>

<div id="screen-container">
    <div class="content-seperator">
        <h1 id="CRISPR-more">CRISPR-Cas9 <span class="sub-sub-heading">The Game Changer</span></h1>
        <p>
            It has a wide spread application in <span class="key">healthcare</span> in curing diseases and fight cancer. In 2015, scientist used CRISPR to cut HIV virus out of the living cell out of a patients in a lab. Simply just an year later a larger scale project was held with rats with <span class="key">HIV</span> present in <span class="key">99%</span> of their cells. After injecting CRISPR in the rat's tails, they were able to remove over <span class="key">50%</span> of the virus from the rat's body. In future it may be possible to completely cure <span class="key">HIV</span> for good.
        <br><br>
        </p>
    <!-- <div class="more-dropdown">
        <span class="key">The CRISPR-Cas9 system consists of two key molecules that introduce a change (mutation?) into the DNA. These are:</span>
        <div class="more-dropdown-content">
            <span class="key">an enzyme? called Cas9. This acts as a pair of 'molecular scissors' that can cut the two strands of DNA at a specific location in the genome so that bits of DNA can then be added or removed. <br><br>
        </div>
    </div> -->
</div>

```

A piece of RNA? called guide RNA (gRNA). This consists of a small piece of pre-designed RNA sequence (about 20 bases long) located within a longer RNA scaffold. The scaffold part binds to DNA and the pre-designed sequence 'guides' Cas9 to the right part of the genome. This makes sure that the Cas9 enzyme cuts at the right point in the genome.

```
</div>
</div>-->
<p>
<br>
```

The guide RNA is designed to find and bind to a specific sequence in the DNA. The guide RNA has RNA bases? that are complementary? to those of the target DNA sequence in the genome. This means that, at least in theory, the guide RNA will only bind to the target sequence and no other regions of the genome.

```
<br><br>
```

The Cas9 follows the guide RNA to the same location in the DNA sequence and makes a cut across both strands of the DNA.

```
</p>
</div>
<iframe width="559" height="315" style="align-self: center; margin: 40px 0px;">
<!--<div>
</body>
</html>
```

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <link rel="stylesheet" href="/Styles/common.css">
  <link rel="stylesheet" href="/Styles/more.css">
  <!--<link rel="stylesheet" href="/Styles/about.css" -->

  <title>Future</title>
  <link rel="icon" type="image/x-icon" href="/Assets/Favicon.png">

</head>
<body>
  <div id="header-container">
    
    <div id="header-button-container">
      <button class="header-buttons" onclick="window.location = './home.html'">Home</button>
      <!-- onclick="window.location = './more.html'" -->
      <div class="dropdown">
```

```

<button class="header-buttons">More</button>
<div class="dropdown-content">
  <a onclick="window.location = './application.html'">Application</a>
  <a onclick="window.location = './risk.html'">The Risk</a>
  <a onclick="window.location = './future.html'">The Future</a>
  <a onclick="window.location = './crispr.html'">CRISPR</a>
  <a onclick="window.location = './stories.html'">Stories</a>
</div>
</div>

<button class="header-buttons" onclick="window.location = '../about.html'">About</button>
<button class="header-buttons" onclick="window.location = '../contact.html'">Contact</button>
</div>
</div>
<div id="screen-container">

  <div class="content-seperator">
    <h1 id="Future-more">The Future <span class="sub-sub-heading">Endless Possibilities</span></h1>
    <p>
      Imagine we lived in the <span class="key">1980s</span> and were told that computers would take over the world, that computers would handle pretty much every thing from shopping, dating and the stock market and we would have a have a hand held device orders of magnitude more powerful than the super computers of that time. It seems impossible, but it became reality and became <span class="key">normal</span> we don't even think about it.
    <br><br>
      We are in a similar stage with <span class="key">genetic engineering</span> now, The new technology <span class="key">CRISPR</span> (Clustered Regularly Interspaced Short Palindromic Repeats) has the ability to change what we pensive as normal for ever. Soon we will be able to engineer babies with selected traits like smartness and strength on our will. It will be so consistent that it will me normal and there will be no risks involved. Future athletic champions will for sure be genetically modifies in some way to help them play better in their games.
    </p>
  </div>
  <iframe width="559" height="315" style="align-self: center; margin: 40px 0px;" src="https://www.youtube.com/embed/TnzcwTyr6cE"></iframe>
</div>
</body>
</html>

```

```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">

```

```
<link rel="stylesheet" href="/Styles/common.css">
<link rel="stylesheet" href="/Styles/more.css">
<!-- <link rel="stylesheet" href="/Styles/about.css" -->

<title>Health Care</title>
<link rel="icon" type="image/x-icon" href="/Assets/Favicon.png">

</head>
<body>
  <div id="header-container">
    
    <div id="header-button-container">
      <button class="header-buttons" onclick="window.location = './home.html'">Home</button>
      <!-- onclick="window.location = './more.html'" -->
      <div class="dropdown">
        <button class="header-buttons">More</button>
        <div class="dropdown-content">
          <a onclick="window.location = './application.html'">Application</a>
          <a onclick="window.location = './risk.html'">The Risk</a>
          <a onclick="window.location = './future.html'">The Future</a>
          <a onclick="window.location = './crispr.html'">CRISPR</a>
          <a onclick="window.location = './stories.html'">Stories</a>
        </div>
      </div>
    </div>
    <button class="header-buttons" onclick="window.location = './about.html'">About</button>
    <button class="header-buttons" onclick="window.location = './contact.html'">Contact</button>
  </div>
</div>
<div id="screen-container">
  <div class="content-seperator">
    <h1 id="Application-more">The Application <span class="sub-sub-heading">of genetic engineering</span></h1>
    <div class="more-dropdown">
      <span class="key">1. It can cure genetic deceases</span>
      <div class="more-dropdown-content">
        It can cure genetic deceases that cannon be cured with traditional medicines as they pass on through generations<br>
      </div>
    </div>
    <div class="more-dropdown">
      <span class="key">2. Production of edible vaccines</span>
      <div class="more-dropdown-content">

```

Edible vaccines will be available which contains bacteria which are genetically modified to fight a specific type of virus. This is highly effective as they can spot the virus more accurately even if they are hiding among other cells.


```
</div>
</div>
<div class="more-dropdown">
  <span class="key">3. Cure for Cancer</span>
  <div class="more-dropdown-content">
```

Cancer an disease that is one of our main rivals, treating it has been an challenge until now. Genetically modified killer T-cells and other immune cells are produced and is being injected into the human body. Which are more active cancer finders and hunters. This has been under development for the past few decades, and is being developed faster than ever before.


```
  </div>
</div>
<div class="more-dropdown">
  <span class="key">4. Develop GMO crops</span>
  <div class="more-dropdown-content">
```

A genetically modified organism (GMO) is an animal, plant, or microbe whose DNA has been altered using genetic engineering techniques. For thousands of years, humans have used breeding methods to modify organisms. Corn, cattle, and even dogs have been selectively bred over generations to have certain desired traits.


```
  </div>
</div>
<div class="more-dropdown">
  <span class="key">5. Gene therapy</span>
  <div class="more-dropdown-content">
```

Gene therapy is a technique that uses a gene(s) to treat, prevent or cure a disease or medical disorder. Often, gene therapy works by adding new copies of a gene that is broken, or by replacing a defective or missing gene in a patient's cells with a healthy version of that gene.


```
  </div>
</div>
<div class="more-dropdown">
  <span class="key">5. Cloning</span>
  <div class="more-dropdown-content">
```

Cloning is a technique scientists use to make exact genetic copies of living things. Genes, cells, tissues, and even whole animals can all be cloned. Some clones already exist in nature. Single-celled organisms like bacteria make exact copies of themselves each time they reproduce. This approach, by avoiding risk of rejection by the immune system, has the potential to benefit many patients, including those affected by Alzheimer disease, diabetes, and spinal cord injury.


```
  </div>
</div>
</div>
<iframe width="559" height="315" style="align-self: center; margin: 40px 0px;">
  <a href="https://www.youtube.com/embed/DIM38NIkWEo"></a>
</iframe>
```

```
</body>
</html>
```

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <link rel="stylesheet" href="/Styles/common.css">
    <link rel="stylesheet" href="/Styles/more.css">

    <script src="/Scripts/more-content.js"></script>

    <title>Risk</title>
    <link rel="icon" type="image/x-icon" href="/Assets/Favicon.png">

</head>
<body>
    <div id="header-container">
        
        <div id="header-button-container">
            <button class="header-buttons" onclick="window.location = './home.html'">Home</button>
            <!-- onclick="window.location = './more.html'" -->
            <div class="dropdown">
                <button class="header-buttons">More</button>
                <div class="dropdown-content">
                    <a onclick="window.location = './application.html'">Application</a>
                    <a onclick="window.location = './risk.html'">The Risk</a>
                    <a onclick="window.location = './future.html'">The Future</a>
                    <a onclick="window.location = './crispr.html'">CRISPR</a>
                    <a onclick="window.location = './stories.html'">Stories</a>
                </div>
            </div>
        </div>

        <button class="header-buttons" onclick="window.location = './about.html'">About</button>
        <button class="header-buttons" onclick="window.location = './contact.html'">Contact</button>
    </div>
</div>
<div id="screen-container">
    <div class="content-seperator" id="content-selector-container" style="width: 40vw;">
        <div style="display: flex;flex-direction: column;">
            <h1 id="Application-more">The Risk Involved </h1>
```

```
<span class="sub-sub-heading">in Genetic Engineering</span>
</div>
<div id="selection-container">
    <h3 class="selection" id="Environmental-Selector" onclick="switchContent('Environmental-Content','Environmental-Selector')">1. Environmental Impact</h3>
    <h3 class="selection" id="HealthRisks-Selector" onclick="switchContent('HealthRisks-Content','HealthRisks-Selector')">2. Health Risks</h3>
    <h3 class="selection" id="GeneticDiversity-Selector" onclick="switchContent('GeneticDiversity-Content','GeneticDiversity-Selector')">3. Genetic Diversity Reduction</h3>
    <h3 class="selection" id="Socioeconomic-Selector" onclick="switchContent('Socioeconomic-Content','Socioeconomic-Selector')">4. Socioeconomic Issues</h3>
    <h3 class="selection" id="GeneFlow-Selector" onclick="switchContent('GeneFlow-Content','GeneFlow-Selector')">5. Gene Flow</h3>
    <h3 class="selection" id="PublicTrust-Selector" onclick="switchContent('PublicTrust-Content','PublicTrust-Selector')">6. Lack of Public Trust </h3>
</div>
</div>
<div class="content-seperator" id="more-content" style="width: 60vw;">
    <div class="more-content-container more-content-show" id="Environmental-Content">
        <h2>Environmental Impact</h2>
        <p>Genetically modified organisms (GMOs) released into the environment can potentially interact with native species, leading to ecological disruption. </p>
        
        <p>For example, GMO crops may crossbreed with wild relatives, creating hybrid plants that have unpredictable characteristics.</p>
        <button class="learnmore-button" onclick="window.location.href='https://www.mayoclinic.org/tests-procedures/gene-therapy/about/pac-20384619?sscid=91k7_2any3'">Know about Gene Therapy</button>
    </div>
    <div class="more-content-container" id="HealthRisks-Content">
        <h2>Health Risks</h2>
        <p>There is concern about the potential health risks associated with consuming GMOs. While extensive safety testing is conducted, some worry about long-term effects on human health, including allergenicity and unintended side effects. </p>
        <div style="display:flex;flex-direction: row; justify-content: space-between; margin: 30px 0px;">
            <div style="display:flex;flex-direction: column;flex-wrap: wrap; width: 300px;justify-content: center;align-items: center;text-align: justify; margin: 30px 0px; margin-left: 40px;">
                
            </div>
        </div>
        <p>The first is that genetic engineering can transfer allergens from foods to which people know they are allergic, to foods that they think are safe.</p>
    </div>
</div>
```

```
</div>

<div class="more-content-container" id="GeneticDiversity-Content">
    <h2>Genetic Diversity Reduction</h2>
    <p>The widespread adoption of genetically modified crops could reduce genetic diversity within crop species. This reduced diversity may make crops more susceptible to diseases, pests, and environmental changes.</p>
    <div style="display:flex;flex-direction: column;flex-wrap: wrap;width: 300px;justify-content: center;align-items: center;text-align: justify; margin: 30px 0px;">
        
        <h4 class="image-title" >Gene therapy is a way of treating or preventing disease by altering the genetic instructions within an individual's cells.</h4>
    </div>
    <p>Low genetic diversity means that there is a limited variety of alleles for genes within that species and so there are not many differences between individuals.</p>
    </div>
    <div class="more-content-container" id="Socioeconomic-Content">
        <h2>Socioeconomic Issues</h2>
        <p>
            Genetic engineering can be expensive, potentially leading to increased inequality in access to its benefits. Small farmers and developing countries may be at a disadvantage if they cannot afford genetically modified seeds or technologies
        </p>
        <br><br>
        <!-- <div style="display:flex;flex-direction: column;flex-wrap: wrap;width: 300px;justify-content: center;align-items: center;text-align: justify; margin: 30px 0px;">
            
        </div> -->
        <p>
            Adoption of GMOs into seed markets could lead to farmer dependence on corporations that control the price and supply of seeds. The cost of switching from traditional to genetically modified seeds could also lead to increased inequality among farmers, as poorer smallholders will be left behind by their competitors.
        </p>
        </div>
        <div class="more-content-container" id="GeneFlow-Content">
            <h2></h2>
            <p>
                Genetic modifications can potentially spread to related species through natural
            </p>
        </div>
    </div>
```

processes like pollination and reproduction. This gene flow can lead to the unintentional alteration of non-target organisms.

```
</p>
<div style="display:flex;flex-direction: column;flex-wrap: wrap; width: 300px; justify-content: center; align-items: center; text-align: justify; margin: 30px 0px;">
  
</div>
<p>
```

Gene flow is the transfer of genetic material from one population to another. Gene flow can take place between two populations of the same species through migration, and is mediated by reproduction and vertical gene transfer from parent to offspring.

```
</p>
<button class="learnmore-button" onclick="window.location.href='./stories.html'">Learn more about Dolly</button>
</div>
<div class="more-content-container" id="PublicTrust-Content">
  <h2>Lack of Public Trust</h2>
  <p>
    Some segments of the public have concerns about the transparency and trustworthiness of companies and regulatory agencies involved in genetic engineering, leading to skepticism and opposition to GMOs. T
  </p>
  <div style="display:flex;flex-direction: column;flex-wrap: wrap; width: 300px; justify-content: center; align-items: center; text-align: justify; margin: 30px 0px;">
    
  </div>
  <p>
```

While 46% of people indicated that they agreed with the statement that 'genome editing in general carries too many risks to be used to tackle global challenges', the public is very positive about its use in specific areas such as human health

```
</p>
<button class="learnmore-button" onclick="window.location.href='./stories.html'">Learn more about Dolly</button>
</div>
</div>
<!-- <iframe width="559" height="315" style="align-self: center; margin: 40px 0px;" src="https://www.youtube.com/embed/DIM38NlkWEo"></iframe> -->
</div>
</body>
</html>
```

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <link rel="preconnect" href="https://fonts.googleapis.com">
    <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
    <link href="https://fonts.googleapis.com/css2?family=ADLaM+Display&display=swap" rel="stylesheet">
    <link rel="stylesheet" href="/Styles/common.css">
    <link rel="stylesheet" href="/Styles/more.css">

    <link rel="icon" type="image/x-icon" href="/Assets/Favicon.png">
    <!-- <link rel="stylesheet" href="/Styles/about.css" -->

    <script src="/Scripts/more-content.js"></script>

    <title>Stories</title>
</head>
<body>
    <div id="header-container">
        
        <div id="header-button-container">
            <button class="header-buttons" onclick="window.location = './home.html'">Home</button>
            <!-- onclick="window.location = './more.html'" -->
            <div class="dropdown">
                <button class="header-buttons">More</button>
                <div class="dropdown-content">
                    <a onclick="window.location = './application.html'">Application</a>
                    <a onclick="window.location = './risk.html'">The Risk</a>
                    <a onclick="window.location = './future.html'">The Future</a>
                    <a onclick="window.location = './crispr.html'">CRISPR</a>
                    <a onclick="window.location = './stories.html'">Stories</a>
                </div>
            </div>
        </div>
        <button class="header-buttons" onclick="window.location = './about.html'">About</button>
        <button class="header-buttons" onclick="window.location = './contact.html'">Contact</button>
    </div>
</div>
<div id="screen-container">
```

```
<div class="content-seperator" id="content-selector-container" style="width: 30vw;">
    <h1 id="Application-more">Success Stories <span class="sub-sub-heading"></span></h1>
    <div id="selection-container">
        <h3 class="selection" id="Dolly-Selector" onclick="switchContent('Dolly-Content','Dolly-Selector')">1. Cloning (Dolly)</h3>
        <h3 class="selection" id="Tomatoes-Selector" onclick="switchContent('Tomatoes-Content','Tomatoes-Selector')">2. Wild Tomatoes</h3>
        <h3 class="selection" id="GrowthHormone-Selector" onclick="switchContent('GrowthHormone-Content','GrowthHormone-Selector')">3. Synthetic Human Growth Hormone</h3>
        <h3 class="selection" id="DarkCats-Selector" onclick="switchContent('DarkCats-Content','DarkCats-Selector')">4. Glow-in-the-Dark Cats</h3>
        <h3 class="selection" id="GoldenRice-Selector" onclick="switchContent('GoldenRice-Content','GoldenRice-Selector')">5. Golden Rice</h3>
    </div>
</div>
<div class="content-seperator" id="more-content" style="width: 60vw;">
    <div class="more-content-container more-content-show" id="Dolly-Content">
        <h2>Cloning (Dolly)</h2>
        <p>Dolly was important because she was the first mammal to be cloned from an adult cell. Her birth proved that specialised cells could be used to create an exact copy of the animal they came from.</p>
        <div style="display:flex;justify-content: space-between; margin: 30px 0px;">
            <div style="display:flex;flex-direction: column;flex-wrap: wrap; width: 300px; justify-content: center; align-items: center; text-align: justify;">
                
                <h4 class="image-title" >Dolly as a lamb with her Scottish Blackface surrogate mother. Photo courtesy of the Roslin Institute, University of Edinburgh, UK.</h4>
            </div>
            <div style="display:flex;flex-direction: column;flex-wrap: wrap; width: 300px; justify-content: center; align-items: center; text-align: justify; margin-left: 50px;">
                
                <h4 class="image-title" >Dolly with Professor Sir Ian Wilmut, who led the research which produced her. Photo courtesy of the Roslin Institute, University of Edinburgh, UK.</h4>
            </div>
        </div>
    </div>
    <p>Dolly started her life as a single cell in a test tube taken from the mammary gland of a Finn Dorset sheep and an egg cell from a Scottish Blackface Sheep. Once normal development was confirmed in a lab at six days, the embryo was transferred into a surrogate mother. Dolly was then born on 5 July 1996 and named after the country western singer Dolly Parton.</p>
    <button class="learnmore-button" onclick="window.location.href='https://www.nms.ac.uk/explore-our-collections/stories/natural-sciences/dolly-the-sheep/'">Know more about Dolly</button>

```

```
</div>
<div class="more-content-container" id="Tomatoes-Content">
  <h2>Wild Tomatoes</h2>
  <p>The tomato's path from wild plant to household staple is much more complex than researchers have long thought. For many years, scientists believed that humans domesticated the tomato in two major phases. First, native people in South America cultivated blueberry-sized wild tomatoes about 7,000 years ago to breed a plant with a cherry-sized fruit. Later, people in Mesoamerica bred this intermediate group further to form the large cultivated tomatoes that we eat today.</p>
  <div style="display:flex;flex-direction: column;flex-wrap: wrap; width: 300px; justify-content: center; align-items: center; text-align: justify; margin: 30px 0px;">
    
    <h4 class="image-title">A ripe one grown from one of Lincoln's ripe ones compared to a modern one. Credit: Reddit/Mildly Interesting</h4>
  </div>
  <p>This research has direct implications for crop improvement. For example, some intermediate tomato groups have high levels of glucose, which makes the fruit sweeter. Breeders could use those plants to make cultivated tomatoes more attractive to consumers.</p>
  <button class="learnmore-button" onclick="window.location.href='https://theconversation.com/modern-tomatoes-are-very-different-from-their-wild-ancestors-and-we-found-missing-links-in-their-evolution-130041'">Learn about wild tomatoes</button>
</div>
<div class="more-content-container" id="GrowthHormone-Content">
  <h2>Synthetic Human Growth Hormone</h2>
  <p>
    The U.S. Food and Drug Administration (FDA) has approved the synthetic form of HGH for the treatment of certain conditions. The synthetic form of HGH is available only by prescription and is injected.
  </p>
  In children, healthcare providers prescribe HGH to treat:
  <ul style="color: var(--text); font-size: 1vw; margin: 30px 0px 30px 30px">
    <li>Growth hormone deficiency.</li>
    <li>Conditions that cause short stature, such as chronic kidney disease, Turner syndrome and Prader-Willi syndrome.</li>
  </ul>
  </p>
  <!-- 
  <p>In the future, genetic therapies may be used to prevent, treat, or cure certain inherited disorders, such as cystic fibrosis, alpha-1 antitrypsin deficiency, hemophilia, beta thalassemia, and sickle cell disease. They also may be used to treat cancers or infections, including HIV.</p>
</div>
<div class="more-content-container" id="DarkCats-Content">
```

```
<h2>Glow-in-the-Dark Cats</h2>
<p>Cat owners might find a glow-in-the-dark kitty to be fairly useful—you'll never trip over the cat at night again—but the Mayo Clinic scientists who created this glowing cat had a bigger goal in mind: fighting AIDS.</p>
<div style="display:flex;flex-direction: column;flex-wrap: wrap;width: 300px;justify-content: center;align-items: center;text-align: justify; margin: 30px 0px;">
  
    <h4 class="image-title" >The Glow-In-The-Dark Kitty</h4>
  </div>
  <p>
    The substance that makes the cat glow is a version of the green fluorescent protein that lights up the crystal jelly, a type of jellyfish that lives off the West Coast of the United States.
  </p>
  <br>
  <p>researchers have made many glowing animals, including pigs, mice, dogs, even fish you can buy in the pet store.</p>
  <button class="learnmore-button" onclick="window.location.href='https://theweek.com/articles/464980/7-genetically-modified-animals-that-glow-dark'">Other glow in the dark animals</button>
</div>
<div class="more-content-container" id="GoldenRice-Content">
  <h2>Golden Rice Project</h2>
  <p>Golden rice is genetically modified to produce beta-carotene, which is not normally present in rice. Beta-carotene is converted into vitamin A when metabolized by the human body. We need vitamin A for healthier skin, immune systems, and vision.</p>
  <div style="display:flex;flex-direction: row; justify-content: space-between; margin: 30px 0px;">
    <iframe width="372.6" height="210" style="align-self: center; margin: 40px 0px;" src="https://www.youtube.com/embed/Ayv_EYi43E8"></iframe>
    <div style="display:flex;flex-direction: column;flex-wrap: wrap;width: 300px;justify-content: center;align-items: center;text-align: justify; margin: 30px 0px; margin-left: 40px;">
      
    </div>
  </div>
  <p>
    Golden Rice is an enhanced version of ordinary rice designed to handle a specific nutrition issue, without any additional cost or difference in taste.
  <br><br>
    Currently, there is no cultivation or commercialisation of Golden Rice in India. However, a version of Golden Rice, called GR2E1 has got the necessary approvals related to its regulatory clearance in the Philippines and it is being cultivated in huge areas in that country.
  </p>

```

```

</p>
<button class="learnmore-button" onclick="window.location.href='https://foreignpolicy.com/2019/10/17/golden-rice-genetically-modified-superfood-almost-saved-millions/'>The True Story of the Genetically Modified Superfood That Almost Saved Millions</button>
</div>
</div>
<!-- <iframe width="559" height="315" style="align-self: center; margin: 40px 0px;" src="https://www.youtube.com/embed/DIM38NIkWEo"></iframe> -->
</div>
</body>
</html>

```

```

body{
    display: flex;
    flex-direction: column;
    margin:0;
    border:0;
    background-color: transparent;
    background-image: url("../Assets/background.jpg");
    background-position: center;
    background-size: 100%;
    background-attachment: fixed;
    animation-name: background-bs;
    animation-duration: 30s;
    animation-iteration-count: infinite;
}

#front-container{
    display: flex;
    flex-direction: column;
    justify-content: space-between;
    align-items: center;
    height: 100vh;
}

@keyframes background-bs{
    0% {background-size: 100%;}
    50% {background-size: 120%;}
    100% {background-size: 100%;}
}

#front-title-container{

```

```
display: flex;
flex-direction: column;
align-items: center;
justify-content:center;
}

#front-title-container>h1{
font-size:5vw;
color: var(--text);
font-family: 'Trebuchet MS';
text-decoration: underline;
text-decoration-color: #9a60e0;
text-shadow: 7px 7px #0000006b;
animation: underline-animation 4s linear infinite alternate-reverse;
}

@keyframes underline-animation{
0% {
    text-decoration-color: #AF5EBB;
}

100% {
    text-decoration-color: #0AA6F2;
}
}

#front-title-container>h3{
font-size:3vw;
color: var(--med-text);
/* filter: opacity(80%); */
font-family: 'Trebuchet MS';
text-shadow: 3px 3px #0000006b;
}

#front-title-container>p{
font-size:1.2vw;
color: var(--text);
text-shadow: 2px 2px #0000006b;
}
```

```
#front-title-container>button{
  margin-top: 20px;
}

#front-container>h5{
  font-size: 1.2vw;
  color: var(--text);
  margin-bottom: 20px;
  transition: font-size 1s;
  transform: rotate(90deg);
  animation-name: hover;
  animation-timing-function: linear;
  animation-duration: 3s;
  animation-iteration-count: infinite;
}

#front-container>h5:hover{
  font-size: 1.7vw;
}

@keyframes hover{
  0% {transform: translateY(0px) rotate(90deg);}
  25% {transform: translateY(5px) rotate(90deg);}
  50% {transform: translateY(0px) rotate(90deg);}
  75% {transform: translateY(-5px) rotate(90deg);}
  100% {transform: translateY(0px) rotate(90deg);}
}

.screen-container{
  display: flex;
  flex-direction: row;
  height: 100vh;
  background-color: black;

  background-image: url("../Assets/background-dark.jpg");
  background-color: #000000cc;
  background-position: center;
  background-size: 100%;
  background-attachment: fixed;
  animation-name: background-bs;
  animation-duration: 30s;
  animation-iteration-count: infinite;
}
```

```
}
```



```
.content-seperator{
```

```
    display: flex;
```

```
    flex-direction: column;
```

```
    align-items: center;
```

```
    justify-content:center;
```

```
    width: 50vw;
```

```
}
```

```
.content-seperator>h1{
```

```
    color: var(--text);
```

```
    font-size: 4vw;
```

```
    align-items: center;
```

```
    text-align: center;
```



```
    line-height: 95%;
```

```
}
```

```
.content-seperator>h3{
```

```
    color: var(--light-text);
```

```
    margin-top:-5px;
```

```
    font-size: 2.5vw;
```

```
}
```

```
.content-seperator>p{
```

```
    color: var(--contrast);
```

```
    padding: 10px 90px;
```

```
    font-size: 1.2vw;
```

```
    text-align: justify;
```

```
}
```

```
.content-seperator>div>.list-item{
```

```
    color: var(--contrast);
```

```
    font-size: 1.2vw;
```

```
    text-align: justify;
```

```
    padding:10px;
```

```
}
```

```
.learnmore-button{
```

```
    margin-top: 10px;
```

```
    padding: 7px 20px;
```

```
font-size: 1.2vw;
align-self: center;

background-color: var(--contrast);
color: #0c0c0c;
border-style:solid;
border-color: var(--contrast);

border-radius: 5px;

transition: all 0.3s;
}

.learnmore-button:hover{
background-color: transparent;
color: var(--contrast);
}

.image{
width:40vw;
/* border:4px solid var(--contrast); */
border-radius: 20px;
/* transition: transform 1s; */
animation-name: rotation;
animation-duration: 50s;
animation-iteration-count: infinite;
animation-timing-function: linear;
}

@keyframes rotation {
0%{
    transform: scale(100%) rotate(45deg);
}

100%{
    transform: scale(100%) rotate(360deg);
}
}

#big-text-container{
display: flex;
flex-direction: row;
```

```
}

big-text{
  color: var(--contrast);
  font-size: 20vh;
  font-family: fantasy;
  transition: all 0.2s;
}

.big-text:hover{
  color: var(--orange);
  font-size: 24vh;
  font-family: fantasy;
}

med-text{
  color: var(--contrast);
  font-size: 10vh;
  font-family: 'Franklin Gothic Medium', 'Arial Narrow', Arial, sans-serif;
  transition: all 0.2s;
}

.med-text:hover{
  color: var(--orange);
  /*font-size: 17vh;*/
  transform: scale(120%);
  /*font-family: fantasy;*/
}

youtube-video{
  border:none;
}

#front-learnmore-button{
  text-decoration: none;
  position: relative;
  border: none;
  font-size: 1vw;
  font-family: inherit;
  color: #fff;
  width: 7em;
  height: 2em;
}
```

```
line-height: 2em;
text-align: center;
background: linear-gradient(90deg,#03a9f4,#f441a5,#ffeb3b,#03a9f4);
background-size: 300%;
border-radius: 30px;
z-index: 1;
}

#front-learnmore-button:hover {
    animation: ani 8s linear infinite;
    border: none;
}

@keyframes ani {
0% {
    background-position: 0%;
}
100% {
    background-position: 400%;
}
}

#front-learnmore-button:before {
    content: "";
    position: absolute;
    top: -4px;
    left: -4px;
    right: -4px;
    bottom: -4px;
    z-index: -1;
    background: linear-gradient(90deg,#03a9f4,#f441a5,#ffeb3b,#03a9f4);
    background-size: 400%;
    border-radius: 35px;
    transition: 1s;
}

#front-learnmore-button:hover::before {
    filter: blur(20px);
}

#front-learnmore-button:active {
```

```
background: linear-gradient(32deg,#03a9f4,#f441a5,#ffeb3b,#03a9f4);
}

/* #myVideo {
z-index:-22;
position: fixed;
right: 0;
bottom: 0;
min-width: 100%;
min-height: 100%;
width: 100vw;
} */
```

```
:root{
--light-text:#dce0e4ce;
--text:#eff2f5;
--transparent: #00000079;
--darker:#0d1013;
--dark:#12161a;
--med:#1a2128;
--contrast:#ffea00;
--orange:#ffc847;
--light-orange:#ffc847b0;
}

body{
background-color: #17171a;
/* background: url("../Assets/BlackBack.jpg") repeat center center; */

/* padding:70px 100px 70px 30px; */
display:flex;
flex-direction: column;
}

#screen-container{
display:flex;
flex-direction: row;
height: 100vh;
/* background-color: rgb(15, 15, 18); */

/* background-color: rgb(16, 16, 18); */
```

```
/* background-position: center; */
/* background-attachment: fixed; */
}

.content-seperator{
    display: flex;
    flex-direction: column;
    /* align-items: center; */
    justify-content:center;
    width: 50vw;
    padding: 50px;
}

.text-container{
    display:flex;
    flex-direction: column;
    width: 70vw;

    transition: width 0.5s;
}

h1,heading{
    color: var(--orange);
    font-size: 4vw;

    padding: 0;
    /*margin-bottom: 10px;*/

    text-align: left;
    font-family: system-ui, -apple-system, BlinkMacSystemFont, 'Segoe UI', Roboto, Oxygen, Ubuntu, Cantarell, 'Open Sans', 'Helvetica Neue', sans-serif;
}

h2,.sub-heading{
    color: var(--orange);
    font-size: 3vw;
    margin-bottom:20px;
    font-family: 'ADLaM Display',cursive;
}

.sub-sub-heading{
```

```
color: var(--light-orange);  
font-size: 1.7vw;  
  
text-align: right;  
font-family: 'Varela Round', sans-serif;  
}  
  
p{  
color: var(--text);  
font-size: 1.1vw;  
font-weight: normal;  
text-align: justify;  
font-family: 'Varela Round', sans-serif;  
}  
  
/* .short{  
width:70vw;  
} */  
  
ol{  
color: var(--light-text);  
font-size: 1vw;  
font-weight: normal;  
text-align: justify;  
margin-left: 30px;  
}  
  
.h-container{  
display: flex;  
flex-direction: row;  
/* width: 50vw; */  
justify-content:center;  
}  
  
.v-container{  
display: flex;  
flex-direction: column;  
justify-content:center;  
}  
  
#selection-container{  
display: flex;
```

```
flex-direction: column;
}

.selection{
  color: var(--light-text);
  font-size: 1.5vw;
  font-weight: 600;
  font-family: 'Varela Round', sans-serif;
}

.selection:hover{
  color: var(--text);
  font-weight: 700;
}

.selected{
  color: var(--text);
  font-weight: 700;
}

.more-content-container{
  display: none;
  flex-direction: column;
  justify-content:center;
  align-items: center;
  transition:all 2s;
  /* width: 0px; */
}

.more-content-container>img{
  margin: 10px;
}

.more-content-show{
  display: flex;
}

.image-title{
  color: var(--light-text);
  margin-top:5px;
  font-size: 0.8vw;
  font-family: 'Varela Round', sans-serif;
}
```

```
}

.learnmore-button{
    margin-top: 20px;
    padding: 7px 20px;
    font-size: 1.2vw;
    align-self: center;

    background-color: var(--orange);
    color: #0c0c0c;
    border-style:solid;
    border-color: var(--orange);

    border-radius: 5px;

    transition: all 0.3s;
}

.learnmore-button:hover{
    background-color: transparent;
    color: var(--orange);
}
```

```
:root{
    --light-text:#dce0e4ce;
    --med-text:#eef1f5ec;
    --text:#f8f9fa;
    --transparent: rgba(0, 0, 0, 0.75);
    --darker:#0d1013;
    --dark:#12161a;
    --med:#1a2128;
    --contrast:#ffea00;
    --orange:#ffb62f;
    --light-orange:#f8b332e2;
}

*{
    font-family: 'Gill Sans', 'Gill Sans MT', Calibri, 'Trebuchet MS', sans-serif;
    margin:0;
    padding:0;
    -webkit-user-select: none;
    -ms-user-select: none;
```

```
    user-select: none;
}

body {
    -ms-overflow-style: none;
    scrollbar-width: none;
}

body::-webkit-scrollbar {
    display: none;
}

html {
    scroll-behavior: smooth;
}

#header-container{
    display: flex;
    align-items: center;

    justify-content: space-between;

    position: fixed;
    top: 0px;
    right: 0px;
    z-index: 5000;

    width: 100%;
    height: 7vh;
}

#header-button-container{
    display: flex;
    align-items: stretch;
    flex-direction: row;
}

.header-buttons{
    width: 8vw;
    height: 7vh;
    text-align: center;
    color: var(--text);
}
```

```
background-color: transparent;
border: none;

display: inline-block;
position: relative;
color: var(--text);
font-size: 1.1vw;
}

.header-buttons::after {
  content: "";
  position: absolute;
  width: 100%;
  transform: scaleX(0);
  height: 2px;
  bottom: 0;
  left: 0;
  background-color: var(--text);
  transform-origin: bottom center;
  transition: transform 0.25s linear;
}

.header-buttons:hover::after {
  transform: scaleX(1);
  transform-origin: bottom center;
}

.white{
  color: var(--text);
}

#screen-container{
  display: flex;
  flex-direction: row;
  height: 100vh;
}

.content-seperator{
  display: flex;
  flex-direction: column;
  justify-content: center;
  width: 50vw;
}
```

```
}

.dropdown{
  display: inline-block;
  position: relative;
  width: 8vw;
}

.dropdown-content {
  display: none;
  position: absolute;
  width: 100%;
  overflow: auto;
  box-shadow: 0px 10px 10px 0px rgba(0,0,0,0.4);
}

.dropdown:hover .dropdown-content {
  display: block;
}

.dropdown-content a {
  display: block;
  color: var(--text);
  background-color: var(--transparent);
  padding: 5px;
  text-decoration: none;
}

.dropdown-content a:hover {
  color: #FFFFFF;
  background-color: #00A4BD;
}
```

```
body{
  background-color: #17171a;
}

.content-seperator>h1{
  color: var(--orange);
  font-size: 4vw;
  padding: 0px 90px;
```

```
    text-align: left;
    font-family: Arial, Helvetica, sans-serif;
}
```

```
.content-seperator>p{
  color: var(--light-text);
  padding: 20px 90px;
  font-size: 1vw;
  font-weight: normal;
  text-align: justify;
```

```
  font-family: Arial, Helvetica, sans-serif;
```

```
}
```

```
.h-container{
  display: flex;
  flex-direction: row;
  width: 50vw;
  justify-content:center;
}
```

```
.v-container{
  display: flex;
  flex-direction: column;
  justify-content:center;
}
```

```
.details-input{
  width:15vw;
  background-color: transparent;
  color: var(--light-text);
  padding: 5px 10px;
  border-style:solid;
  border-color: var(--light-text);
  margin: 5px;
}
```

```
.details-input-wide{
  width:32vw;
  align-self: center;
}
```

```
#submit-button{
    margin-top: 10px;
    padding: 10px 20px;
    font-size: 1.2vw;
    align-self: center;

    background-color: var(--orange);
    color: #0f0f12;
    border-style:solid;
    border-color: var(--orange);

    transition: all 0.3s;
}

#submit-button:hover{
    background-color: #0f0f12;
    color: var(--orange);
}

#social-container{
    display: flex;
    justify-content: space-between;
    margin-left: 70px;
    padding: 10px;
    width: 20vw;
}

.social{
    width:2.3vw;
    filter: invert(100%);
    margin-left: 10px;
}

.social:hover{
    filter: invert(100%) opacity(50%);
}
```

```
body{
    background-color: #17171a;
}
```

```
#screen-container{
    display:flex;
    flex-direction: row;
    height: 100vh;
}

.content-seperator{
    display: flex;
    flex-direction: column;
    /* align-items: center; */
    justify-content:center;
    width: 50vw;
}

.h-container{
    display: flex;
    flex-direction: row;
    width: 50vw;
    justify-content:center;
}

.v-container{
    display: flex;
    flex-direction: column;
    justify-content:center;
    margin: 20px;
}

.content-seperator>h1{
    color: var(--orange);
    font-size: 4vw;
    padding: 0px 90px;

    text-align: left;
    font-family: system-ui, -apple-system, BlinkMacSystemFont, 'Segoe UI', Roboto, Oxygen, Ubuntu, Cantarell, 'Open Sans', 'Helvetica Neue', sans-serif;
}

.content-seperator>p{
    color: var(--light-text);
    padding: 20px 90px;
```

```
font-size: 1vw;  
font-weight: normal;  
text-align: justify;  
}  
  
.photo{  
width: 10vw;  
}  
  
.name{  
color: var(--text);  
font-size: 2vw;  
font-family: monospace;  
}  
  
.role{  
color: var(--light-text);  
font-size: 0.9vw;  
font-family: sans-serif;  
margin-top: 2px;  
}
```

JS

```
var uname;  
var phone;  
var subject;  
var email;  
var message;  
  
function sendEmail() {  
Email.send({  
Host : "smtp.elasticemail.com",  
Username : "bryanjoeadams@gmail.com",  
Password : "7A62EEC25F0FC18598BC7932C2BFB302DCAC",  
To: 'bryanjoeadams@gmail.com',  
From: 'bryanjoeadams@gmail.com',  
Subject: subject,  
Body: "Name:${uname}\nPhone:${phone}\nEmail:${email}\n${message}",  
}).then(function (message) {  
alert(message);  
})
```

```

    alert("Updated")
  });
}

function submit(){
  uname = document.getElementById('name').value;
  phone = document.getElementById('phone').value;
  subject = document.getElementById('subject').value;
  email = document.getElementById('email').value;
  message = document.getElementById('message').value;

  sendEmail();
}

}

```

```

//  

// Library  

//  

//  

var Dial = function(container) {  

  this.container = container;  

  this.size = this.container.dataset.size;  

  this.strokeWidth = this.size / 8;  

  this.radius = (this.size / 2) - (this.strokeWidth / 2);  

  this.value = this.container.dataset.value;  

  this.direction = this.container.dataset.arrow;  

  this.svg;  

  this.defs;  

  this.slice;  

  this.overlay;  

  this.text;  

  this.arrow;  

  this.create();  

}  

Dial.prototype.create = function() {  

  this.createSvg();  

  this.createDefs();  

  this.createSlice();  

  this.createOverlay();  

  this.createText();  

}

```

```

this.createArrow();
this.container.appendChild(this.svg);
};

Dial.prototype.createSvg = function() {
  var svg = document.createElementNS("http://www.w3.org/2000/svg", "svg");
  svg.setAttribute('width', this.size + 'px');
  svg.setAttribute('height', this.size + 'px');
  this.svg = svg;
};

Dial.prototype.createDefs = function() {
  var defs = document.createElementNS("http://www.w3.org/2000/svg", "defs");
  var linearGradient = document.createElementNS("http://www.w3.org/2000/svg", "linearGradient");
  linearGradient.setAttribute('id', 'gradient');
  var stop1 = document.createElementNS("http://www.w3.org/2000/svg", "stop");
  stop1.setAttribute('stop-color', '#ffea00');
  stop1.setAttribute('offset', '0%');
  linearGradient.appendChild(stop1);
  var stop2 = document.createElementNS("http://www.w3.org/2000/svg", "stop");
  stop2.setAttribute('stop-color', '#fff25e');
  stop2.setAttribute('offset', '100%');
  linearGradient.appendChild(stop2);
  var linearGradientBackground = document.createElementNS("http://www.w3.org/2000/svg", "linearGradient");
  linearGradientBackground.setAttribute('id', 'gradient-background');
  var stop1 = document.createElementNS("http://www.w3.org/2000/svg", "stop");
  stop1.setAttribute('stop-color', 'rgba(0, 0, 0, 0.2)');
  stop1.setAttribute('offset', '0%');
  linearGradientBackground.appendChild(stop1);
  var stop2 = document.createElementNS("http://www.w3.org/2000/svg", "stop");
  stop2.setAttribute('stop-color', 'rgba(0, 0, 0, 0.05)');
  stop2.setAttribute('offset', '100%');
  linearGradientBackground.appendChild(stop2);
  defs.appendChild(linearGradient);
  defs.appendChild(linearGradientBackground);
  this.svg.appendChild(defs);
  this.defs = defs;
};

Dial.prototype.createSlice = function() {
  var slice = document.createElementNS("http://www.w3.org/2000/svg", "path");
  slice.setAttribute('fill', 'none');

```

```

slice.setAttribute('stroke', 'url(#gradient)');
slice.setAttribute('stroke-width', this.strokeWidth);
slice.setAttribute('transform', 'translate(' + this.strokeWidth / 2 + ',' + this.strokeWidth / 2 + ')');
slice.setAttribute('class', 'animate-draw');
this.svg.appendChild(slice);
this.slice = slice;
};

Dial.prototype.createOverlay = function() {
  var r = this.size - (this.size / 2) - this.strokeWidth / 2;
  var circle = document.createElementNS("http://www.w3.org/2000/svg", "circle");
  circle.setAttribute('cx', this.size / 2);
  circle.setAttribute('cy', this.size / 2);
  circle.setAttribute('r', r);
  circle.setAttribute('fill', 'url(#gradient-background)');
  this.svg.appendChild(circle);
  this.overlay = circle;
};

Dial.prototype.createText = function() {
  var fontSize = this.size / 3.5;
  var text = document.createElementNS("http://www.w3.org/2000/svg", "text");
  text.setAttribute('x', (this.size / 2) + fontSize / 7.5);
  text.setAttribute('y', (this.size / 2) + fontSize / 4);
  text.setAttribute('font-family', 'Century Gothic, Lato');
  text.setAttribute('font-size', fontSize);
  text.setAttribute('fill', '#ffffff');
  text.setAttribute('text-anchor', 'middle');
  var tspanSize = fontSize / 3;
  text.innerHTML = 0 + '<tspan font-size=' + tspanSize + ' dy=' + -tspanSize * 1.2 + '%>%</tspan>';
  this.svg.appendChild(text);
  this.text = text;
};

Dial.prototype.createArrow = function() {
  var arrowSize = this.size / 10;
  var arrowYOffset, m;
  if(this.direction === 'up') {
    arrowYOffset = arrowSize / 2;
    m = -1;
  }
  else if(this.direction === 'down') {

```

```

arrowYOffset = 0;
m = 1;
}

var arrowPosX = ((this.size / 2) - arrowSize / 2);
var arrowPosY = (this.size - this.size / 3) + arrowYOffset;
var arrowDOffset = m * (arrowSize / 1.5);

var arrow = document.createElementNS("http://www.w3.org/2000/svg", "path");
arrow.setAttribute('d', 'M 0 0 ' + arrowSize + ' 0 ' + arrowSize / 2 + '' + arrowDOffset + ' 0 0 Z');
arrow.setAttribute('fill', '#ffffff');
arrow.setAttribute('opacity', '0.6');
arrow.setAttribute('transform', 'translate(' + arrowPosX + ', ' + arrowPosY + ')');
this.svg.appendChild(arrow);
this.arrow = arrow;
};

Dial.prototype.animateStart = function() {
    var v = 0;
    var self = this;
    var intervalOne = setInterval(function() {
        var p = +(v / self.value).toFixed(2);
        var a = (p < 0.95) ? 2 - (2 * p) : 0.05;
        v += a;
        // Stop
        if(v >= +self.value) {
            v = self.value;
            clearInterval(intervalOne);
        }
        self.setValue(v);
    }, 10);
};

Dial.prototype.animateReset = function() {
    this.setValue(0);
};

Dial.prototype.polarToCartesian = function(centerX, centerY, radius, angleInDegrees) {
    var angleInRadians = (angleInDegrees-90) * Math.PI / 180.0;
    return {
        x: centerX + (radius * Math.cos(angleInRadians)),
        y: centerY + (radius * Math.sin(angleInRadians))
    };
}

```

```

Dial.prototype.describeArc = function(x, y, radius, startAngle, endAngle){
    var start = this.polarToCartesian(x, y, radius, endAngle);
    var end = this.polarToCartesian(x, y, radius, startAngle);
    var largeArcFlag = endAngle - startAngle <= 180 ? "0" : "1";
    var d = [
        "M", start.x, start.y,
        "A", radius, radius, 0, largeArcFlag, 0, end.x, end.y
    ].join(" ");
    return d;
}

Dial.prototype.setValue = function(value) {
    var c = (value / 100) * 360;
    if(c === 360)
        c = 359.99;
    var xy = this.size / 2 - this.strokeWidth / 2;
    var d = this.describeArc(xy, xy, xy, 180, 180 + c);
    this.slice.setAttribute('d', d);
    var tspanSize = (this.size / 3.5) / 3;
    this.text.innerHTML = Math.floor(value) + '<tspan font-size=' + tspanSize + ' dy=' + -tspanSize * 1.2 + '%>%</tspan>';
};

// Usage
// 

var containers = document.getElementsByClassName("chart");
var dial = new Dial(containers[0]);
dial.animateStart();

```

```

var selected = "GeneEng";

function switchContent(id, selfid){
    Array.from(document.getElementById('more-content').children).forEach(element => {
        element.classList.remove("more-content-show")
    });

    Array.from(document.getElementById('selection-container').children).forEach(element => {
        element.classList.remove("selected")
    });
}

```

```
selected = id

document.getElementById(id).classList.add("more-content-show")
document.getElementById(selfid).classList.add("selected")
}
```