

Assessment portfolio

SC1153

Introduction to Biotechnology



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New Kandy road
Malabe
9.1th Batch (2023 Octomber-2024 January)

Biotechnology module outline

B. Sc in Biotechnology Module Outline - Semester 1 –October 2023 to January 2024

Introduction to Biotechnology

Course Code	SC1153	Theory hours	18 hours
No. of Credits	3	Assignment hours	20 hours
Pre-requisites Course Codes		Independent Learning hours	112 hours
Course Type	Core		

Intended Learning Outcomes

At the end of the module student will be able to:

1. Define biotechnology
2. Explain various sub sections in biotechnology and their applications
3. Describe methods of gene transfer and genetic engineering applications
4. Explain regulations in GM products. Interpret the acceptance and rejections of GMO by people. Debate ethical issues in biotechnology
5. Interpret new technologies
6. Explain the career opportunities in biotechnology and prepare for an interview.
7. Discuss entrepreneurship in biotechnology

Lecture no.	Theory	No. of hours
1.	Define Biotechnology and identify its areas: Agricultural, Medical, Microbial, Environmental, Marine	2 hours
2.	Genetic engineering methods in plant, animals and microbial. Direct and indirect gene transfer methods Agrobacterium mediated, micro projectile bombardment, micro injection, virus mediated, etc.	4 hours
3.	GE (Genetic Engineering) applications to feed the world—agricultural biotechnology, Food industry. Biotechnology for industrial products—food, beverages, drugs and pharmaceuticals. Cosmo- biotechnology.	4 hours
4.	Medical biotechnology to heal the world. Drugs, therapeutic applications.	2 hours
5.	Environmental protection through biotechnology. Bioremediation etc. biotechnology	2 hours
6.	Monitoring and approval of GMOs by various authorities. Peoples' acceptance and rejections.GM regulations. Ethical issues in various biotechnological areas.	4 hours

Assignments

Assignments are the key assessment in this course. There will be 5 assignments

Ass.no.	Assignment Name	Due date
1.	Quiz (Individual)	13.11.2023
2.	Group presentation on selected area of biotechnology (Group work)	24.11.2023
3.	Develop a video on new product / invention developed through biotechnology (group work presentation)	15.12.2023
4.	Organize a talk show on selected ethical issues in biotechnology – (group work)	05.01.2024
5	Cover letter and resume. career opportunities available and career descriptions and career path (individual)	12.01.2024
6.	Presentation about your role model	19.01.2024
7.	Compile all the assignments, submit a portfolio (individual)	29.01.2024

Methods of Assessment	Weightage%
Continuous assessments	100
Assignments- 7	70
Portfolio and Presentation	30

Classroom Etiquettes

The deadline for each assignment should be strictly adhered. Late submission of 2 days is subjected to 10% deduction and assignments will not be accepted afterwards.

When submitting your assignments save as indicated below.

Your first name- Your registration number- assignment no. (Nethmini– HS100000000- 01). If this is not adhered marks will be deducted.

The first slide of every presentation should include the name and the registration number of the group members.

Copying other people's work is a punishable act. It will be revealed in the class. Involved parties will get 0 marks and a punishment.

Coming late to class is discouraged as it disturbs the class. Late comers should sit in the front row and questions will be asked during the lecture.

Everyone should be present to other's presentations. Absentees will get 5 marks deduction from your presentation marks.

Any act which disturbs (speaking to fellow students, using the phone) the class is subjected to a punishment.

Abstract ...

This module is really interesting module which we can gain lot of experiences to our future. This module increase not only the knowledge of students but also many valuable skills like , personality,creativity,self confidence etc.as we are in first year first semester we got mainly 7 assignments for this module.

First assignment was a quiz. It was based on introduction of various areas of biotechnology and we had given marks and it was a paper based assignment. Our second assignment was a group presentation and it was based on selected area of biotechnology. We had given creating a video presentation on a biotechnology product as our third assignment and it was done as a group presentation. then we did a talk show based on the acceptance and ethical issues on selected topics as our fourth assignment.

After we had to make a resume and cover letter as our fifth assignment and it was done by individually. Then we did our first individual presentation based on our future career trajectory and it was the sixth assignment. Lastly this is our last assignment ; assignment number 7 portfolio presentation. This is based on summary of all assignments we did.

At the end of this module I got lot of experiences and I improved many of my hidden skills by doing these assignments than the first day I attend to sri lanka institute if information technology. Some of skills I developed are communication skill, presenting skill, team working, skill to create presentations,video presentations, creativity,punctuality, skills to resolve problems etc.

Therefore this a very interesting and valuble module for me. Because I got most of these all experiences for the first time in my life. So this module help me to find my hidden skills and this is a very huge basement to my future career trajectory and for my next step in next semester in my biotechnology degree.

Acknowledgements ...

During this journey I met 2 valuable persons to my life who teach me to build up my personality ,and build path to my future career trajectory. I take this opportunity to express my gratitude for professor Shriyani Pieris madam and professor Colein Pieris sir for being with us and help us throughout this module. And I also thankfull for all professors and lecturers who joined with us in our group presentations to give us marks and who help us to make our weaknesses, directly by giving valuble advices to us.

In this module I worked with many friends closely and I got valuable experience in team working. Mainly I worked with my friends ;Nawodya Wikramaaarachchi, Punmini Kalatuwage, Malsha Fernando, Thushali Ananda,Hirunee Senarath, Muhammed Mohedein, Thisus Samarasekara and Diyanita Goonawardana as my team mates. So I can honestly said that I got a very valuable experience on team working with them. It was very easy to handle all group presentations with them and we all got a nice time and experience by working together.

So I can happily said that this module was very enjoyable and valuable module for me. I am very much thankful for all people who are with me in this module to be successful in this module. And I am express my gratitude for my parents, all badge mates and all lecturers who help me to success in this module.

Content ...

Assignment

Page number

-  **Assignment 1 (Quiz 1)**
-  **Assignment 2 (Group presentation)**
-  **Assignment 3 (Video presentation)**
-  **Assignment 4 (Talk show)**
-  **Assignment 5 (Resume and cover letter)**
-  **Assignment 6 (Career trajectory)**
-  **Assignment 7 (Portfolio presentation)**

Assignment 1

Quiz 1

Title	Based on various sectors in Biotechnology
Date	202311.13
Assignment type	Paper based. 20 minutes 15 multiple choice questions
Objective	To memorize about what we learn about various sectors in biotechnology
Marks for paper	100%
Highest marks received in the class	100%
Marks I received	73%

QUIZ 1

Sri Lanka Institute of Information Technology
BSc (Hons) in Biotechnology
SC1153: Introduction to Biotechnology – October 2023 to January 2024

Quiz 1

Index No : HS 23576384

1	a	X	c	d
2	a	X	c	d
3	a	b	c	X
4	a	b	X	d
5	X	b	c	d
6	a	X	c	d
7	X	b	c	d
8	a	X	c	d
9	X	b	c	d
10	X	b	c	d
11	a	X	c	d
12	a	b	c	X
13	a	b	X	d
14	a	b	c	X
15	a	b	X	X

73%

1. What is the primary goal of agricultural biotechnology?

- a. To increase the use of inorganic fertilizers.
- b. To increase food production.
- c. To reduce the use of land to prevent pollution.
- d. To eliminate traditional farming practices.

2. Which of the following is an example of a genetically modified (GM) crop?

- a. Alphonso Mango
- b. Corn that is resistant to insect pests
- c. Greenhouse tomatoes
- d. 'Red Lady' papaya

3. What is the role of recombinant DNA technology in agriculture?

- a. Creating hybrid animals.
- b. Developing animals which live long.
- c. Enhancing the taste of fruits and vegetables.
- d. Improving crop characteristics through genetic modification.

4. Which biotechnological technique allows scientists to transfer genes from one organism to another?

- a. DNA replication
- b. Polymerase chain reaction (PCR)
- c. Genetic engineering
- d. Natural selection

5. How does phytoremediation differ from traditional soil cleanup methods?

- a. Phytoremediation uses chemicals to neutralize contaminants.
- b. Phytoremediation relies on plants to absorb and accumulate pollutants.
- c. Phytoremediation involves physical removal of contaminated soil.
- d. Phytoremediation requires industrial equipment and machinery.

6. Which of the following techniques is commonly used to amplify DNA sequences in medical biotechnology applications?

- a) PCR (Polymerase Chain Reaction)
- b) ELISA (Enzyme-Linked Immunosorbent Assay)
- c) NMR (Nuclear Magnetic Resonance)
- d) HPLC (High-Performance Liquid Chromatography)

7. What is the primary goal of gene therapy in medical biotechnology?

- a) To clone genes for research purposes
- b) To introduce beneficial genes into a patient's cells to treat or prevent disease
- c) To identify genetic mutations for diagnostic purposes
- d) To perform genetic engineering in animals

8. Which of the following is a common application of recombinant DNA technology in medical biotechnology?

- a) Generating electricity from biological materials
- b) Producing biofuels from algae
- c) Creating genetically modified crops
- d) Producing insulin for the treatment of diabetes.

9. Which biotechnological application is used to produce genetically identical plants or animals?

- a) Cloning
- b) Hybridization
- c) Mutation breeding
- d) Crossbreeding

10. In the context of agriculture, what does CRISPR-Cas9 technology allow scientists to do?

- a. Create artificial pesticides.
- b. Edit the DNA of crops for specific traits.
- c. Increase soil acidity
- d. Decrease crop yields

11. Environmental biotechnology is instrumental in addressing global challenges. Which of the following represents a complex issue that can be solved using environmental biotechnology?

- a. Pollution control and waste management.
- b. Space exploration and satellite technology.
- c. Economic policy and international trade.
- d. Ethics of stem cell use

12. When applying bioremediation techniques for environmental cleanup, what role do microorganisms play in the process?

- a. Microorganisms generate more pollution.
- b. Microorganisms convert pollutants into harmless substances.
- c. Microorganisms are solely responsible for the pollution.
- d. Microorganisms have no impact on pollution.

13. Which of the following is a common application of food 3D printing?

- a) Creating electronics components
- b) Sculpting complex cake decorations
- c) Building architectural models
- d) Manufacturing automotive parts

14. In addition to energy savings, what is another environmental benefit of using enzyme detergents in laundry?

- a) Reduced plastic waste
- b) Decrease pollution
- c) Lower water usage
- d) Improved soil quality

15. Which type of enzymes are commonly used in laundry detergents to break down protein-based stains like blood or grass?

- a) Lipases
- b) Cellulases
- c) Amylases
- d) Proteases

~~~ End of the Question Paper~~~

# Assignment 2 Presentation

|                           |                                                                                                                                                                 |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title of assignment       | Group presentation on selected area of biotechnology                                                                                                            |
| Title of our presentation | Agricultural biotechnology in plants                                                                                                                            |
| Date to submit            | 2023.11.21                                                                                                                                                      |
| Date of presentation      | 2023.11.25                                                                                                                                                      |
| Assignment details        | <p>Presentation time is 20 minutes per group and 3 minutes per student</p> <p>15-17 slides can be there</p> <p>Quiz was held at the end of the presentation</p> |
| Objective                 | To make school children aware about the different areas of biotechnology                                                                                        |
| Marks for assignment      | 100%                                                                                                                                                            |
| Marks obtained by me      | 83%                                                                                                                                                             |

Group members

Thisus Samarasekara (Leader)  
Punmini Kalatuwage  
Nawodya Wikramaaarachchi  
Malsha Fernando  
Hiruni Senarath  
Thushali Ananda

Last editing of all slides by

Thisus Samarasekara

My slides...

## Benefits of agricultural biotechnology

- Improve farm income
- Reduce the usage of agro chemicals
- Produce herbicide tolerant crops
- Growing season is short
- Can produce disease resistant crops

- Can reduce the nutrient deficiencies.
- Can improve the cardio-vascular health.
- Can obtain different varieties of crops.
- Provide safe and healthy food.

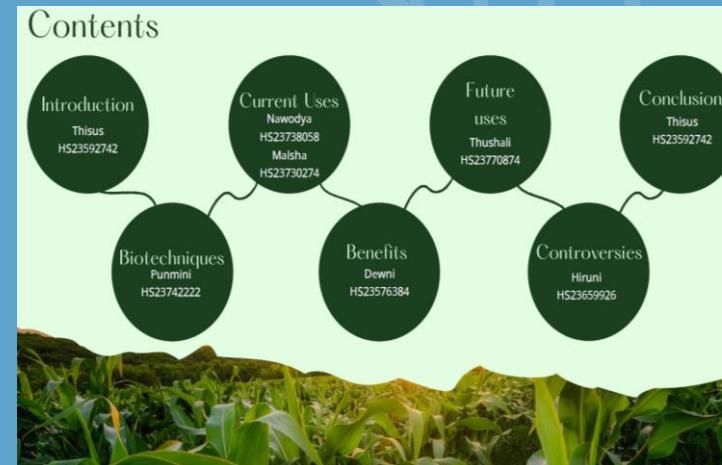
Golden Rice

Genetically modified golden rice helps fight Vitamin A deficiency.

## Presentation slides...



1



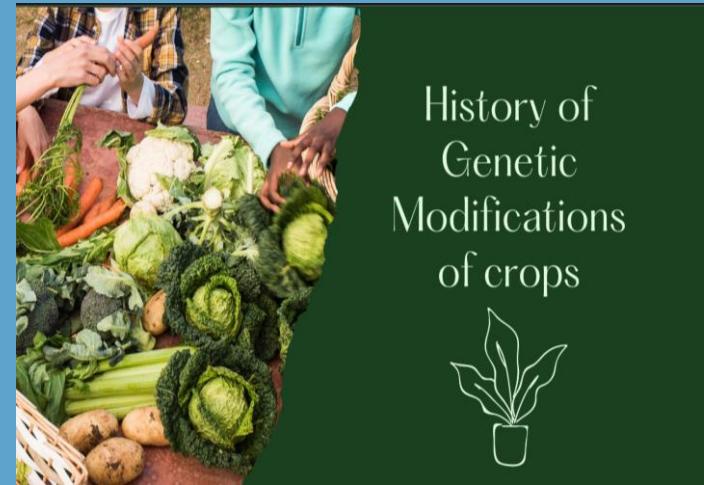
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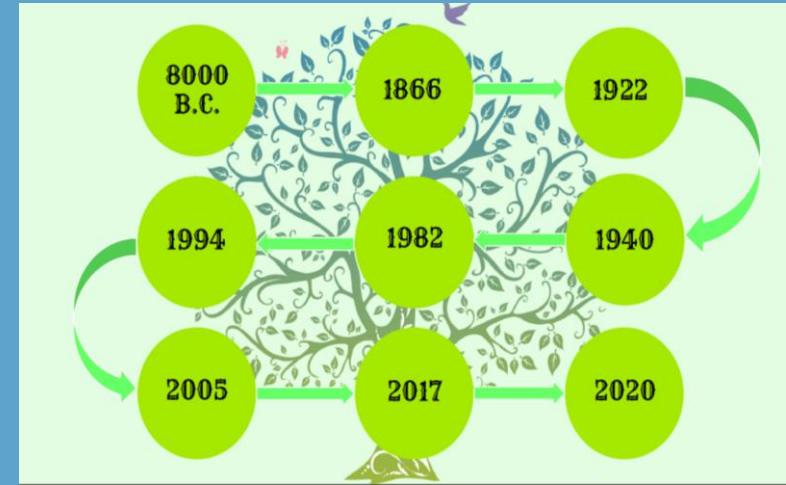
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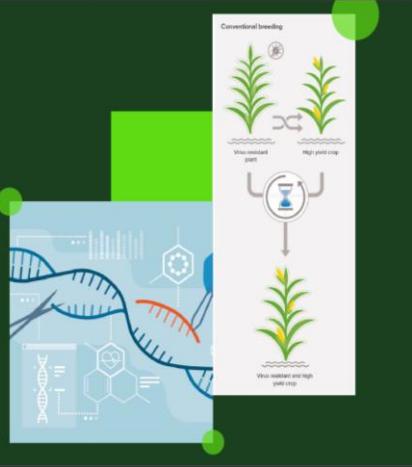


6

10

## Plant Bio-techniques

- Hybridization
- Micropropagation
- Mutagenesis
- DNA-based modifications



7

## Current uses of agriculture biotechnology in plants

- Pest resistant crops
- Disease resistant crops
- Herbicide and stress tolerant crops
- Quality improved crops
- Biofuels
- Improved yield



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## Pest Resistant Crops

Bt. toxin (Bacillus thuringiensis)

Lepidopteron and coleopteron pest resistant crops  
Ex- Cotton  
Maize  
Canola  
Potato

Lepidopteron pest resistant crops  
Ex- A GM rice variety



9

## Disease Resistant Crops



- Papaya and Cucurbits plants ( Melon, Pumpkin, Squash)
- Papaya Ring Spot Virus – PRSV
- Some potato varieties resistant to disease,
- Potato Virus Y – PVY
- Potato Leaf Roll Virus – PLRV
- Late blight disease

## Herbicide and Stress Tolerant Crops

- HT crops - to Glyphosate (Roundup Ready crops)  
Cotton Sugar beet Wheat
- HT crops - to Glufosinate (Liberty Link and In Vigor)  
Cotton Soybean Maize  
Canola Rice Sugar beet
- BtXN Cotton – Tolerate Bromoxinol
- Drought resistance crops - Maize Soybean



11

## Quality Improved Crops

- GM Canola
- GM Potato
- GM Soybean
- Golden rice
- GM Tomato
- GM Corn
- GM Apple



12

11

## What is Bio-Fuel?

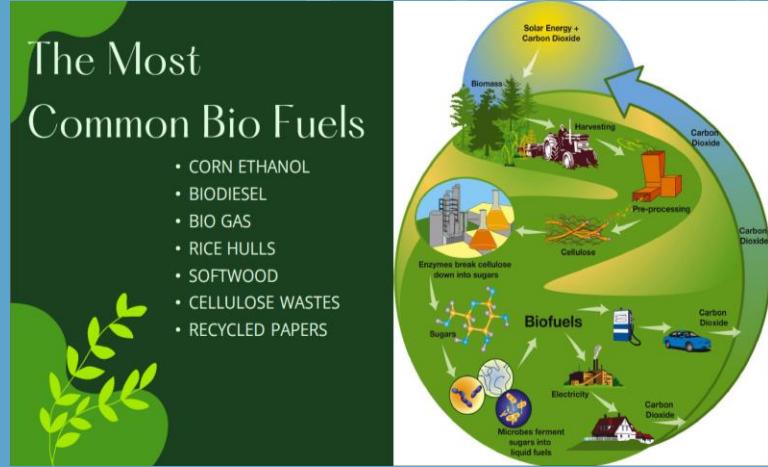
**BIOFUELS** is any whether solid liquid or gas produced from organic materials.



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## The Most Common Bio Fuels

- CORN ETHANOL
- BIODIESEL
- BIO GAS
- RICE HULLS
- SOFTWOOD
- CELLULOSE WASTES
- RECYCLED PAPERS



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## What is Crop Yield?

CROP YIELD IS MEASURE OF THE QUANTITY OF FARM PRODUCTION PRODUCED PER UNIT OF LAND AREA.



15

## Crop Yield are Divided Into 3 Stages

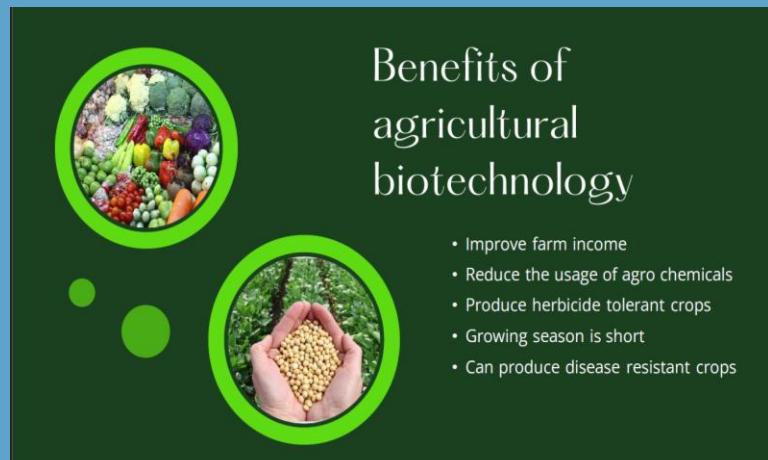
- 1.CROP VARIETY IMPROVEMENT
- 2. CROP PRODUCTION IMPROVEMENT
- 3.CROP PROTECTION MANAGEMENT



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## Benefits of agricultural biotechnology

- Improve farm income
- Reduce the usage of agro chemicals
- Produce herbicide tolerant crops
- Growing season is short
- Can produce disease resistant crops



17



18

12

## Future Plant Biotech Innovations

### 1.TO FARM

Nitrogen use efficient seed varieties  
Food tolerant varieties and Drought tolerant varieties  
Advances in herbicide disease and insect tolerant seeds  
Saline tolerant and heat tolerant seeds

### 2.TO FOOD

More nutritious and higher yielding cassava  
A nutrient rich and more easily digestible sorghum  
Foods with disease fighting properties  
Apples and potatoes that do not brown when sliced

### 3.TO MEDICINE

Diagnostics  
Therapeutics  
Vaccine



19



20



21

## References

- G.C.E Advanced Level Biology Grade 13
- <https://usda.gov/>
- <https://www.cthar.hawaii.edu/>
- <https://www.vedantu.com/biology/improvement-in-crop-yields>
- <https://www.journals.plos.org>
- <https://www.britannica.com>
- <https://www.getbiotechsmart.com>
- <https://AGRIMOON.com>
- Plant biotechnology & Genetics edited by C.Neal Stewart,J.R
- SyngentaX.com



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# Assignment description...

Title: Your selected area – Have a creative title related to the your biotechnology area.

Areas of Biotechnology for each group. Select a group leader.

|    | <b>Biotechnology Area</b>          | <b>Group<br/>s</b> |
|----|------------------------------------|--------------------|
| 1  | Agriculture Biotechnology - plant  | 1                  |
| 2  | Agriculture Biotechnology - animal | 2                  |
| 3. | Medical Biotechnology-             | 3                  |
| 4. | Environmental Biotechnology        | 4                  |
| 5. | Marine Biotechnology               | 5                  |
| 6. | Food Biotechnology                 | 6                  |
| 7. | Industrial Biotechnology           | 7                  |

Prepare a power point presentation on given biotechnology area. Each group member should present part of it.

**Have your own title related to your presentation?**

Presentation should include:

**Introduction**

Introduce your subject with to motivate the audience.

**Main body**

Should have the most important information of your topic. Include the most interesting information of the topic. You should include related information which people have never heard of.

## **Conclusion**

Extract the most important information you included in the presentation

**References:** Most important 3-4 citations you used to develop the presentation

## **The presentation**

The presentation time is 20 minutes (one student 3 minutes)

There can be about 15- 17 slides per presentation

First slide should include the names and registration number of the group members in presenting sequence.

### **Do s**

- 1. Present with confidence and vigour**
- 2. Keep voice loud enough to everyone to hear you.**
- 3. Have a good eye contact**

### **Don't s**

- 1. Do not bring notes or phones to the presentation – marks you get will be low.**
- 2. Do not read the slides, explain the slides**
- 3. Do not just look at the screen without looking at audience.**

**Presentation is on the 24<sup>th</sup> (Friday) November 2023**

**Upload all the presentations before 21<sup>st</sup> November 2023**

Kindly note: When the group leader uploads the presentation to the course web save the presentation with **Group number** and **assignment number**.

At the end of each presentation there will be a quiz from the content of the presentation.

All students should answer the quiz.

# Summary...

## Memories with group members



# Assignment 3

## Video presentation

|                               |                                                                                                                                                  |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Title of the assignment       | Video presentation on new product of Biotechnology                                                                                               |
| Title of the our presentation | CAR-T cell therapy                                                                                                                               |
| Date to submit                | 12.12.2023                                                                                                                                       |
| Date of presentation          | 15.12.2023                                                                                                                                       |
| Assignment details            | <p>It is a video presentation we had to use softwares like ppt videoing, zoom or OBS.</p> <p>Video time is 15 minutes and group presentation</p> |
| Objective                     | To give a message to the general public through the video                                                                                        |
| Marks for the assignment      | 100%                                                                                                                                             |
| Marks obtained by me          | 86%                                                                                                                                              |

Group members

Thisus Samarasekara (Leader)  
Punmini Kalatuwage  
Nawodya Wikramaarchchi  
Malsha Fernando  
Hiruni Senarath  
Thushali Ananda

Last editing of all slides by

Thisus Samarasekara

## MY SLIDES...

### ADVANTAGES OF CAR-T CELL THERAPY

- Very effective in the cancer treatments
- Shortest time needed for treatment
- Rapid recovery after treatment
- Long durability of life.
- Safety to the life
- Positive result for acute lymphoblastic leukemia (ALL)

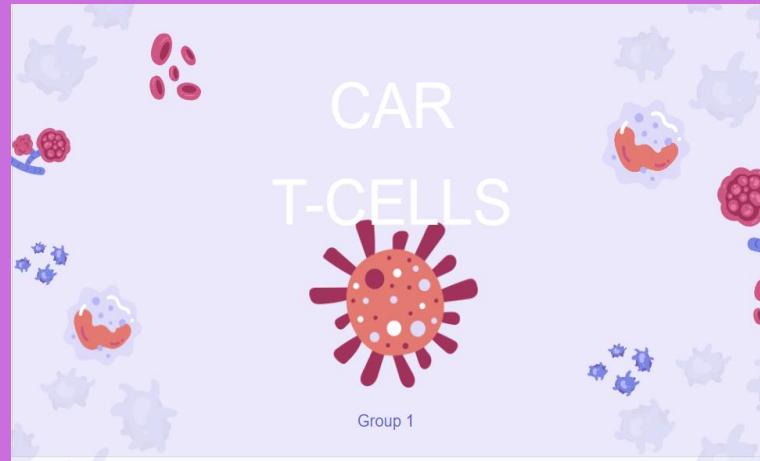


### ADVANTAGES OF CAR-T CELL THERAPY

- Very effective in the cancer treatments
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- Positive result for acute lymphoblastic leukemia (ALL)



# Presentation slides...



1

- Thisus -HS 23 5927 42
- Punmini -HS 23 7422 22
- Nawodya -HS 23 7380 58
- Malsha -HS 23 7302 74
- Dewni -HS 23 5763 84
- Hiruni -HS 23 6599 26
- Thushali -HS 23 7708 74

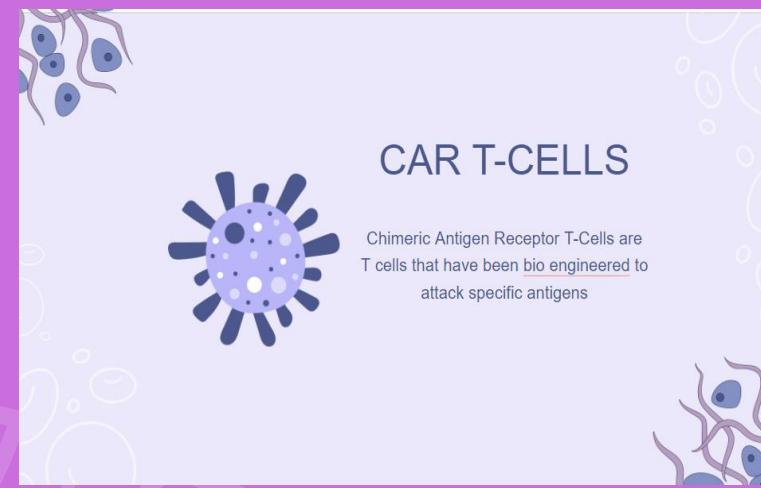
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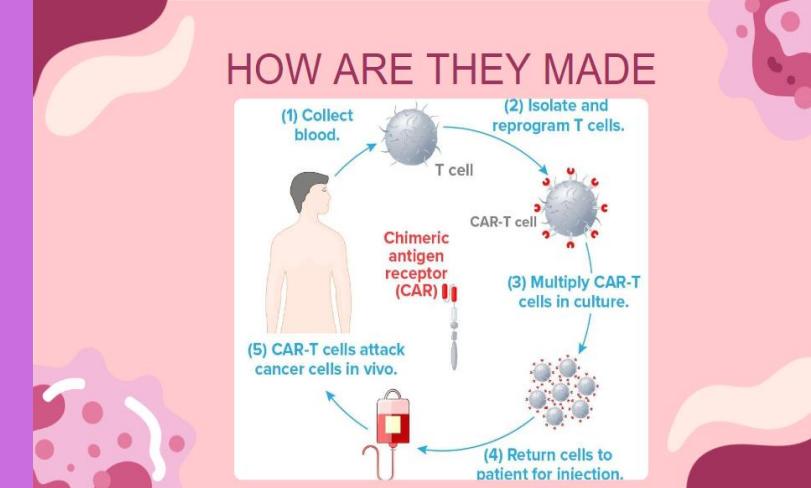
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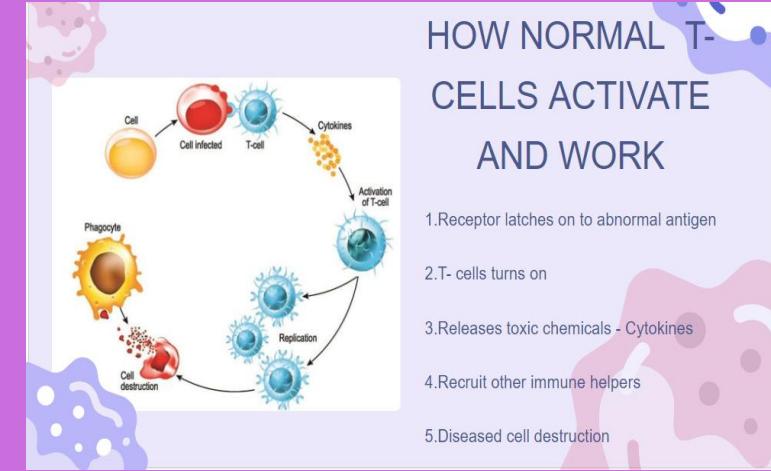
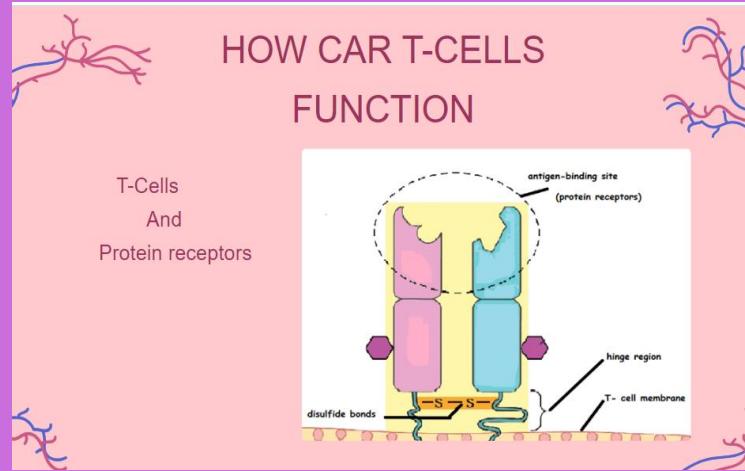
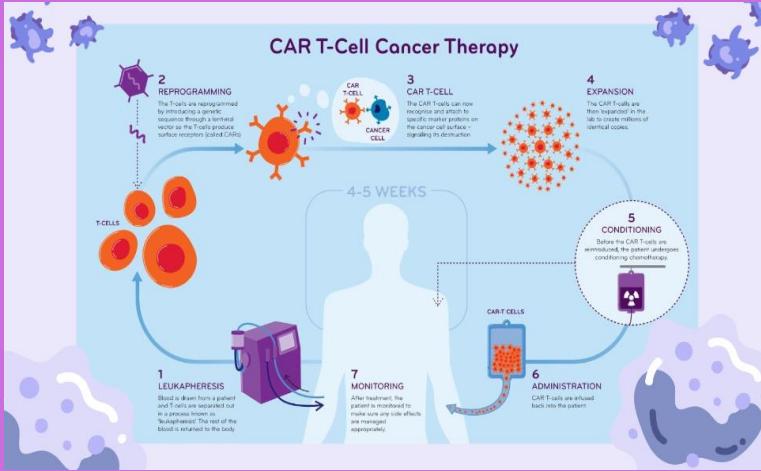
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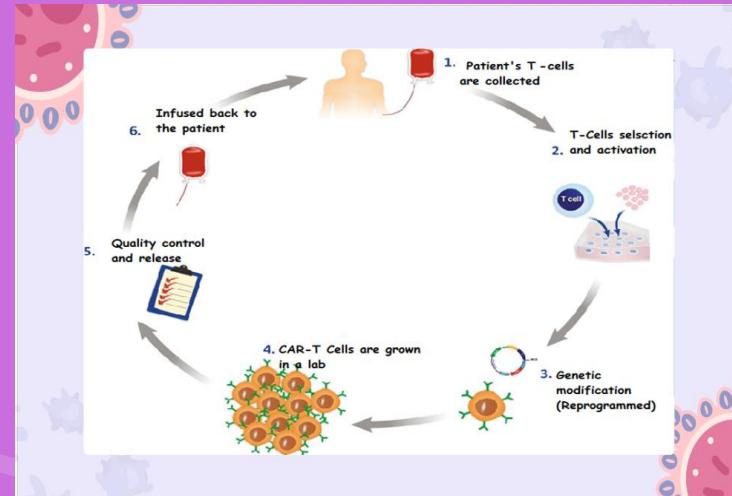
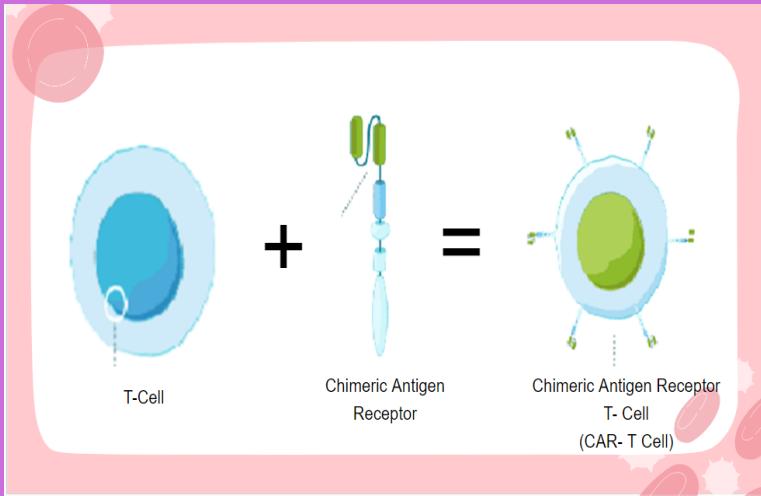
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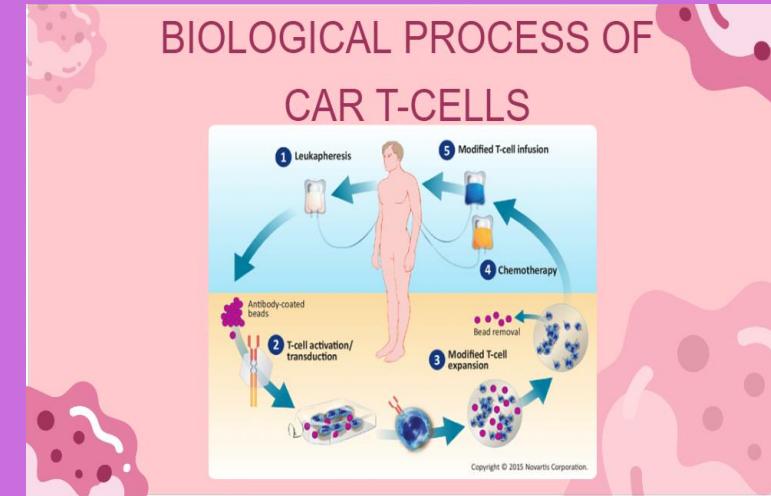
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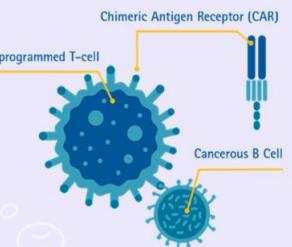
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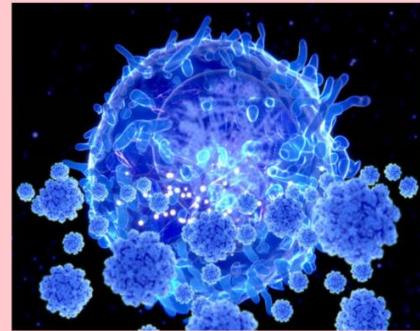
## SPECIAL RECEPTORS

THESE SPECIAL RECEPTORS  
ENABLE THE CAR T CELLS TO  
SEEK OUT AND RECOGNIZE THE  
PATIENT'S CANCER CELLS



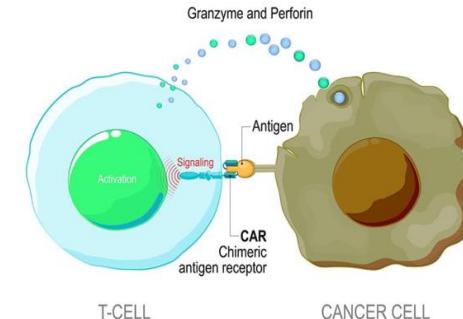
13

## SURFACE OF CAR T CELLS

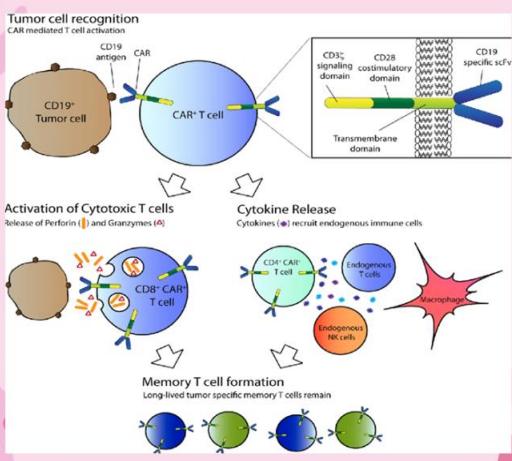


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## CAR T-cell therapy



15



## ADVANTAGES OF CAR-T CELL THERAPY

- Very effective in the cancer treatments
- Rapid recovery after treatment
- Shortest time needed for treatment
- Long durability of life.
- Safety to the life
- Positive result for acute lymphoblastic leukemia (ALL)

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## CURRENT ISSUES IN CAR T-CELL THERAPY

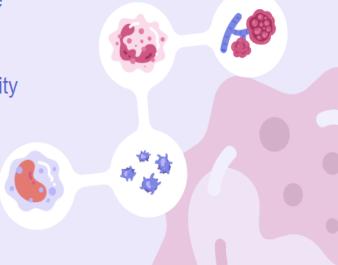
The main problem is side effect of this therapy. Some include,

- 01 TROUBLE OF BREATHING
- 02 HEADACHES
- 03 FAST HEARTBEAT & Feeling very tired

18

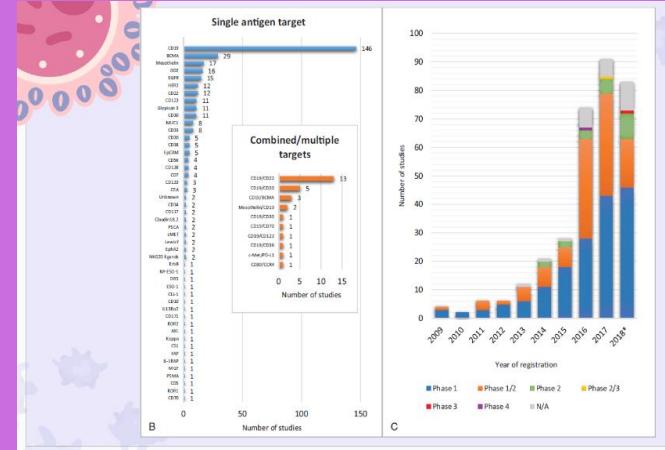
# REASONS FOR SIDE EFFECTS

- 01 Cytokines Release Syndrome [CRS]
  - 02 Neurological Toxicity

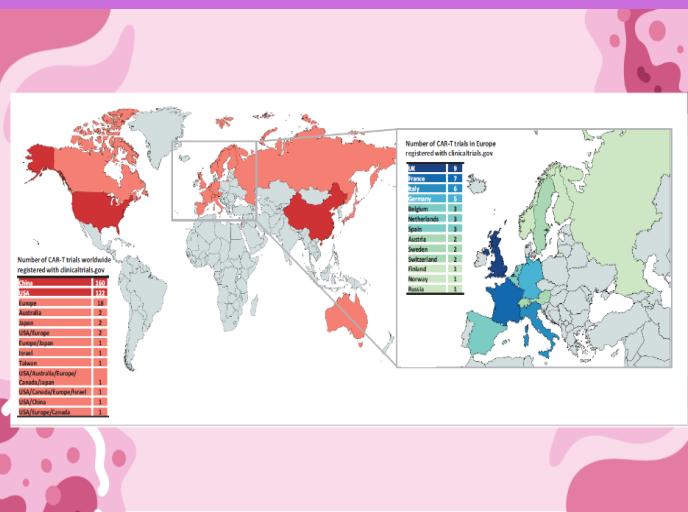


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## CURRENT STATUS OF CAR T CELL DEVELOPMENT



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## FUTURE MODIFICATIONS

FUTURE THERAPIES

- CD19
  - CD38
  - CD138
  - SLAMF7

## TREATMENT OF MYELOMA

## CONCLUSION

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## REFERENCES

- Buka , Rj Kansagra, Skarager [2021] CAR T cell therapy
- <https://www.cancer.net/blog/2021-06/how-does-car-t-cell-therapy-work-treating-cancer>
- <https://blog.dana-farber.org/insight/2017/06/car-t-cell-therapy/>
- [https://journals.lww.com/hemisphere/fulltext/2019/04000/car\\_t\\_cells\\_future\\_perspectives.2.aspx](https://journals.lww.com/hemisphere/fulltext/2019/04000/car_t_cells_future_perspectives.2.aspx)
- <https://www.cancer.gov/about-cancer/treatment/research/car-t-cells>
- <https://my.clevelandclinic.org/health/treatments/1776-car-t-cell>
- <https://www.cancer.gov/about-cancer/treatment/research/car-t-cells>

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## THANK YOU!

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# Assignment description



# Summary...



# Memories with group members









# My memories as host in the talk show



## Memories with group members



# Conclusion

Provide a brief summary of your presentation.  
Remind the audience what you covered in the previous slides.



# Resume

 BIOTECHNOLOGY GRADUATE

## Dewni Chamalsha

### Objective

Well talented, creative minded undergraduate who is seeking for a job as a assistant lecturer. Passionate about handling the laboratory works very well.

### Personal information

|               |                     |
|---------------|---------------------|
| Name          | S.H.Dewni Chamalsha |
| Date of birth | 2002.06.06          |
| Gender        | Female              |
| Nationality   | Sri Lankan          |

### Education

GCE. Ordinary level examination 8AB at Ratnapura Sumana Balika Vidyalaya (2013-2018)

GCE. Advance level examination 2SC in second attempt at Ratnapura Sumana Balika Vidyalaya (2019-2022)

BSc (Hons) Biotechnology 1<sup>st</sup> upper at Sri Lanka Institute of Information Technology (2023-2027)

### Languages

Sinhala  
English  
Tamil

### Contact

0760125045  
16,A,1/2,dangoda,Kiriella,Ratnapura.  
dewnichamalsha0606@gmail.com

### Skills

|                  |     |
|------------------|-----|
| English language | 80% |
| Lab handling     | 80% |
| Computer skill   | 80% |
| Research         | 80% |
| Creativity       | 80% |
| Leadership       | 80% |
| Teamwork         | 80% |
| Investigative    | 80% |
| Hardworking      | 80% |
| Optimistic       | 80% |

### Working experiences

- ★ Internship under Molecular Biology at university of Colombo (2028 January-2028 December)
- ★ Research at department of molecular biology & biotechnology Sri Lanka (Research of evaluating the species limits of endemic plants Genera by DNA barcoding (2028 June-2028 December)

### Extra-curricular activities

Committee member of Rotaract club of Sri Lanka Institute of Information Technology  
Member of Carrom club at Sri Lanka Institute of Information Technology  
Member of English literature club at Ratnapura Sumana Balika Vidyalaya  
Member of Drama and theatre club at Ratnapura Sumana Balika Vidyalaya  
Member of Science club at Ratnapura Sumana Balika Vidyalaya

S.. 5:00 PM ...  
80%  
[Add a reply](#)

## Cover letter

## Dewni Chamalsha

2029/01/05

**Contact information**  
0760125045  
Dewnichamalsha0606@gmail.com  
Idangoda,Kiriella,Ratnapura.

**To**  
Manager,  
Sri Lanka Institute of Information Technology,  
New Kandy road,Malabe,  
Colombo.

Dear sir/madam,

I excited to apply for assistant lecturer position at Sri Lanka Institute of Information Technology. Although I do not have direct experience as a lecturer, I believe my creative skills in teaching, organization and communication skills will be highly valuable for your institute as an assistant lecturer.

Additionally my ability to work well under pressure, hard working and multitask effectively will enable me to handle all tasks perfect

I am waiting for your response and I have attached my resume with this for further details about me.

Thank you.

sincerely,  
Dewni Chamalsha  
January 05 2029

sriyani.p Jan 18 ... X  
75%  
[Add a reply](#)

# Questions & answers

Invite questions from the audience





# Presentation slides

## My future career trajectory

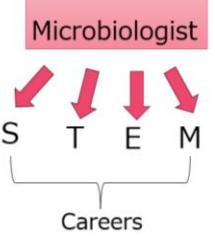
DEWNI CHAMALSHA  
HS23576384  
BSc(hons)Biotechnology  
SLIIT  
2024.01.24



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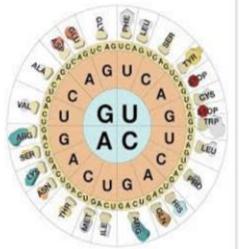
## Dr KAREN ELIZABETH NELSON

Microbiologist



S    T    E    M

Careers



2

## Researches....

- *Thermotoga maritima* bacterium
- Human microbiome → Various diseases

## Honors and Awards....

Helmholtz international fellow award  
Fellow American society for microbiology  
ARCS scientist of the year (2017)  
Elected member of national academy of science (2017)



SCIENCE THAT BENEFITS SOCIETY

AMERICAN UNIVERSITY OF MAURITIUS

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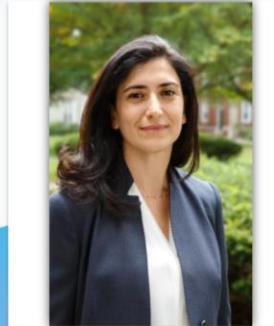


My way to go...

```
graph TD; A[BSc(Hons) Degree] --> B[MSc Degree]; B --> C[Senior lecturer]; C --> D[Professor]
```

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## WHY DID I CHOOSE THIS PATH?



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**"There are diseases that are specific to minorities and specific to women, If we do not have advocates for those diseases they are not going to the attention they needed"**

DR.Karen.E.Nelson

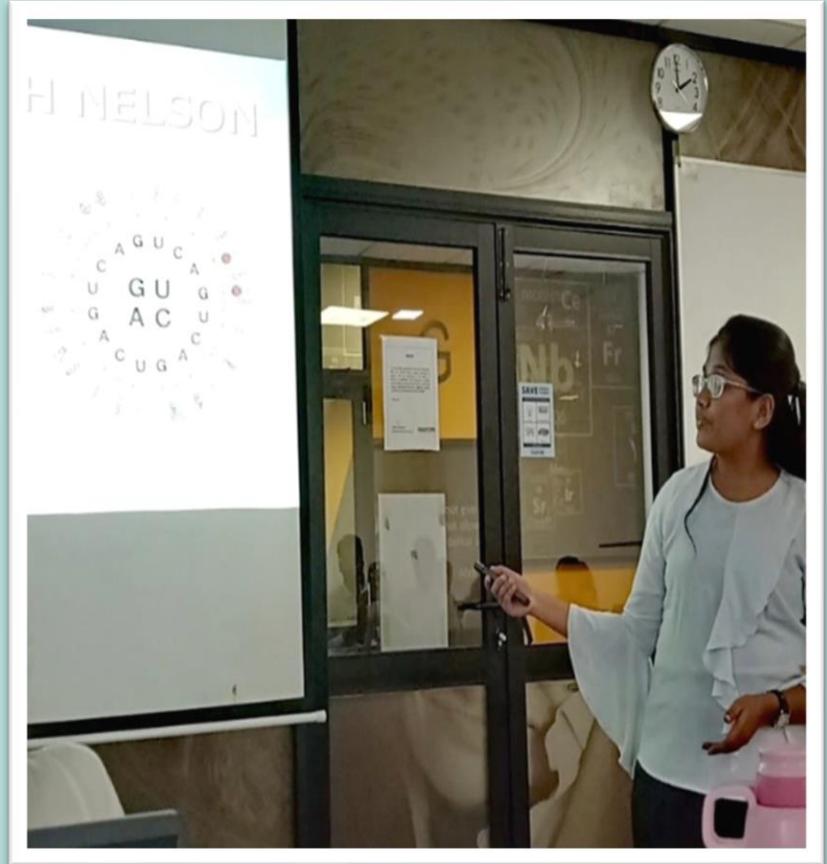
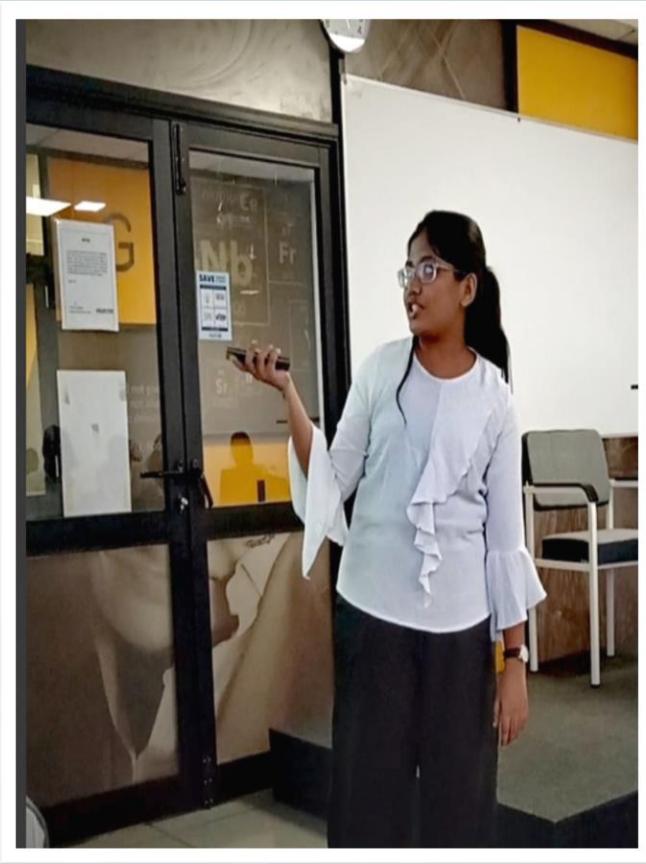
# THANK YOU

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## REFERENCES...

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- *Dr. Karen E. Nelson: Intersecting Science and Humanity to Boost ....* (n.d.). Retrieved January 17, 2024, from <https://www.ccp.edu/about-us/news/featured-news-article/dr-karen-e-nelson-intersecting-science-and-humanity-boost-global>.
- *How to become a University Lecturer and Professor in Sri Lanka?* (n.d.). Retrieved January 17, 2024, from <https://studentlanka.com/2022/09/26/how-to-become-a-university-lecturer-and-professor-in-sri-lanka>.
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**Assessment portfolio**  
**SC1153**  
**Introduction to Biotechnology**



S.H.Dewni Chamalsha  
HS23576384

Sri Lanka Institute of Information technology  
New Kandy road  
Malabe  
9.1th Batch (2023 Octomber-2024 January)