

Designing Excellent 3MT Slides

A decorative background on the right side of the slide consisting of a pattern of light gray triangles of various sizes and orientations, some pointing up and some pointing down, arranged in a somewhat irregular, overlapping fashion.

Kelsey Sheaffer
Director, Adobe Digital Studio /
Creative Technologies Librarian
ksheaff@clemson.edu

RULES

(from the handbook)

- a single static PowerPoint slide is permitted;
- no slide transitions, animations or 'movement' of any description are permitted;
- your slide is to be presented from the beginning of your oration; and
- no additional electronic media (e.g. sound and video files) are permitted.



SLIDE PLANNING

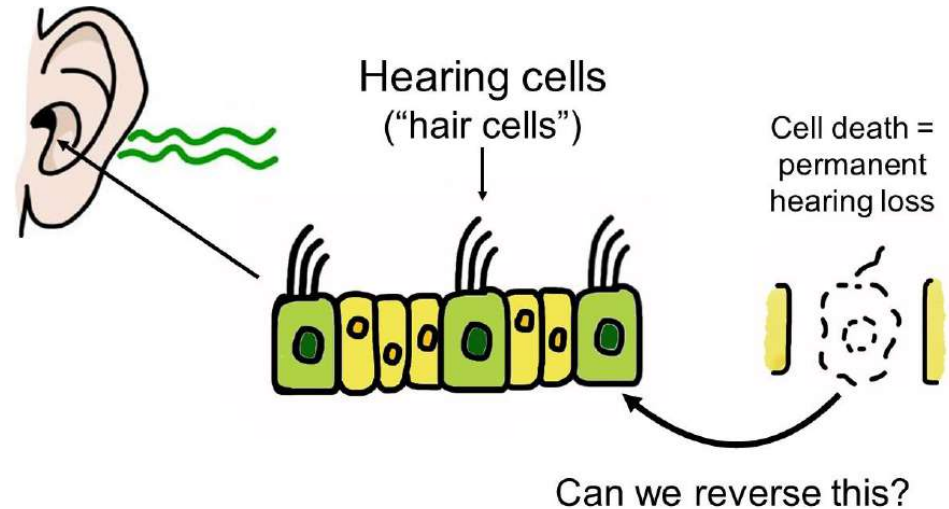
1. Purpose
2. Layout
3. Charm

SLIDE PLANNING

Purpose

- Communicating research in a visual way
- Memorable
- Can assist in explanation

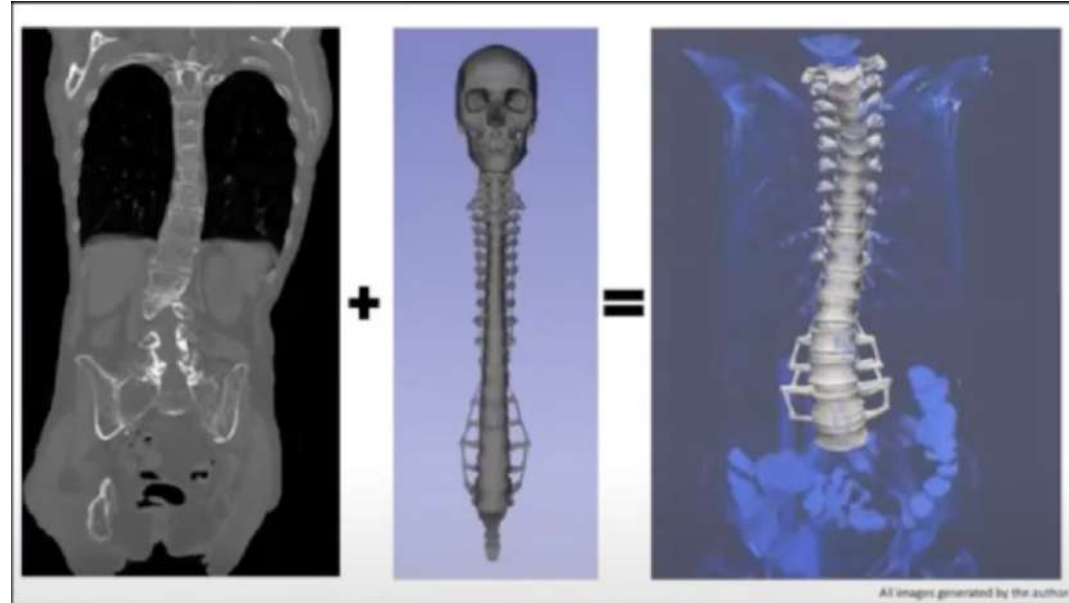
Can you hear me now?: Development and regrowth of cells for hearing



SLIDE PLANNING

Layout

- Not a research poster!
- Don't use too much text
- What charts and graphs do you NEED to explain?
- Design principles



DESIGN 101

COLOR	FONTS
SPACE	GRAPHICS



Accessibility

Consider:



Contrast checkers:

→ [WebAIM](#)

Consider:



Accessible color scheme tools:

→ [ColorBrewer](#)

→ [Color Safe](#)

~60%

~30%

~10%

COLOR

DESIGN 101

COLOR	FONTS
SPACE	GRAPHICS



White (negative) space

[Gmail](#) [Images](#)  [Sign in](#)

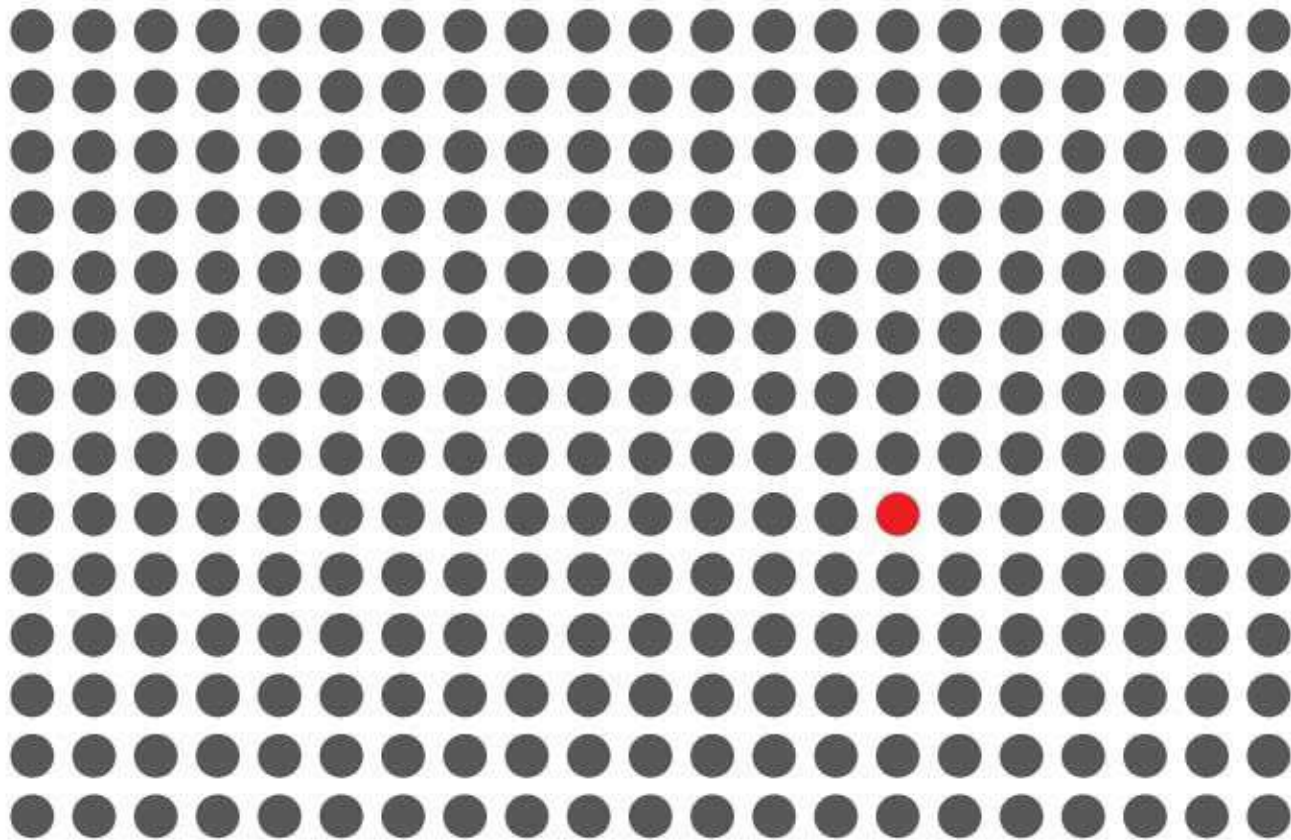
A large, empty search input field with a thin grey border and a small microphone icon on the right side.

Google Search

I'm Feeling Lucky

SPACE

**Focal
point**



SPACE

Grids

Airbnb Book unique homes and experience a city like a local.

Where: Big Sur, CA | When: Check In → Check Out | Guest: 1 guest | Search

Homes

- SD12 Extra homestay - 3 beds | 4.9 (35) reviews
- SD12 Extra homestay - 1 bed | 4.9 (35) reviews
- SD12 Extra homestay - 1 bed | 4.9 (35) reviews

Featured destinations

- Miami
- Tokyo
- Los Angeles
- Paris
- London
- Cape Town

Most popular experiences

- BY NIGHT IN HAVANA
- YAKS
- BY NIGHT IN HAVANA
- YAKS

Filters: English, USD, Airbnb, Shower, Heating

Analysis of mtDNA, Y and X chromosome sequences reveals congruent phylogeographic structure in Arctic lemmings (*Lemmus*)

UAF UNIVERSITY OF ALASKA FAIRBANKS | Naska EPSCoR

Institute of Arctic Biology, University of Alaska Fairbanks, Alaska; Institute of Plant and Animal Ecology, Yakutsk, Russia

Abstract

Arctic lemmings demonstrated strong mtDNA phylogeographic structure across continental distribution with the four major genetic groups: Western, Central, European and Eastern. The split of phylogeographic units, mtDNA clades, clade 3 and clade 4 (67% and 33% and 45%) suggests congruent vicariant separation and genetic divergence of the species. The studied mtDNA clade 3, the mtDNA clade 4, the Y and X chromosome others in clade 3.

Introduction

Arctic lemmings demonstrated strong mtDNA phylogeographic structure across continental distribution with the four major genetic groups: Western, Central, European and Eastern. The split of phylogeographic units, mtDNA clades, clade 3 and clade 4 (67% and 33% and 45%) suggests congruent vicariant separation and genetic divergence of the species. The studied mtDNA clade 3, the mtDNA clade 4, the Y and X chromosome others in clade 3.

Materials and Methods

Phylogenetic relationships among mtDNA, Y and X chromosome sequences were studied. A total of 187 mtDNA, 18 Y and 18 X chromosome sequences were studied. The data were analyzed using the maximum likelihood method. The data were analyzed using the maximum likelihood method. The data were analyzed using the maximum likelihood method.

Results and Discussion

Geographical proximity of all mtDNA haplotypes to the haplotypes of the European clade was supported by genealogy based on variation in mtDNA, Y chromosome, X chromosome and variation in mtDNA, Y chromosome, X chromosome. The mtDNA, Y chromosome, X chromosome phylogenies, with exception for proximity of the European clade, were congruent. This congruence may indicate congruent vicariant separation and genetic divergence of the species.

References

- 1. Kojima S, Ohsawa M, Saito M, et al. (2001) Phylogeography of Lemmings (*Lemmus sibiricus*) in the Bering region of Alaska. *Molecular Ecology*, 10, 725-734.
- 2. Hellberg L, Ellegren H (2001) The levels of mtDNA diversity in mammalian Y chromosomes. *Molecular Ecology*, 10, 180-183.
- 3. Hellberg L, Ellegren H (2004) Y chromosome diversity and genetic structure in the genus *Lemmus*. *Molecular Ecology*, 13, 253-261.

Acknowledgments

This work was financially supported by NSF (grant DEB-0549770) and Alaska National Science Foundation to the lead author, L.C.C. Grant, University of Alaska Fairbanks, UAF, and a UAF research grant provided to the second author, L.C.C. Grant, University of Alaska Fairbanks, UAF.

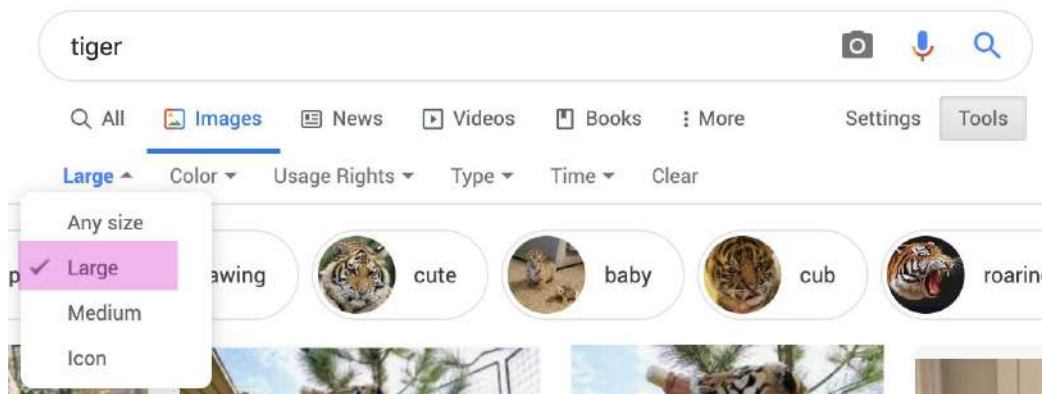
SPACE

DESIGN 101

COLOR	FONTS
SPACE	GRAPHICS



Photographs



Resolution! →



Small image file
from Google -->



Becomes pixelated
when enlarged

Cleaning up photographs

→ [Adobe Express](#)



Icons

- [The Noun Project](#)
- [Font Awesome](#)
- + Powerpoint

Causes of Excessive Sweating

Emotional Factors Anxiety, stress, embarrassment, etc. have a monumental impact on perspiration levels.	Underlying Medical Conditions A large number of medical conditions and prescription drugs can cause excessive sweating.	Hereditary Predisposition It's very common for excessive sweating to run in the family.
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The Products You're Using

 Alcohol	 Cigarettes	 Caffeine	 Prescription Drugs	 Illegal Drugs	 Greasy Food
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Treatments

 Antiperspirants	 Medications	 Iontophoresis	 Botox	 Endoscopic Thoracic Sympathectomy	 Diet
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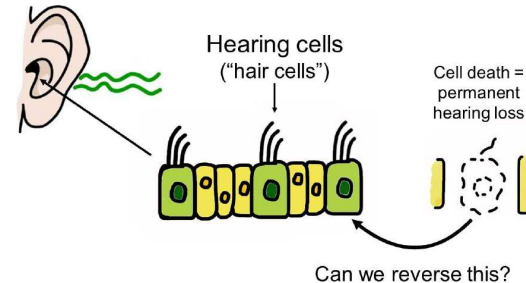
FDA APPROVES NEW NON-INVASIVE, LONG-LASTING TREATMENT FOR UNDERARM SWEATING
miraDry, the new treatment uses a non-invasive handheld device to deliver electromagnetic energy to the area beneath the underarm skin where the sweat glands reside, resulting in thermolysis (decomposition by heat) of the sweat glands.

Build your own?

1. Draw on paper with pencil
2. Trace with pen, erase pencil marks
3. Scan using Adobe Scan
4. On computer, find scan at documentcloud.adobe.com
 - Alt: clean up image in Photoshop
5. In Adobe Illustrator: Use Image Trace of scan to get vector
6. Adjust vector, add text
7. Bring image into Powerpoint or Slides



Can you hear me now?: Development and regrowth of cells for hearing



Tables and graphs

Table 2. Blood glucose levels [Carlson, 1982].

Time (hour)	Normal (mg/dl*)	Diabetic (mg/dl)
midnight	100.3	175.8
2:00	93.6	165.7
4:00	88.2	159.4
6:00	100.5	72.1
8:00	138.6	271.0
10:00	102.4	224.6
noon	93.8	161.8
2:00	132.3	242.7
4:00	103.8	219.4
6:00	93.6	152.6
8:00	127.8	227.1
10:00	109.2	221.3

* decaliters/milligram

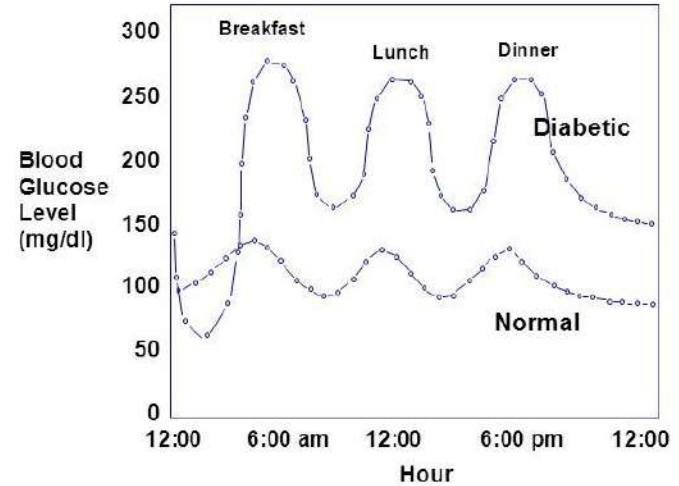


Figure 11. Blood glucose levels for normal individual and diabetic [Carlson, 1982].

TIPS

- Less is more
- You do not have to use any text
- People respond well to visual cues - is there an image that could help you in explaining your research?
- Personal touches
- Think about how your slide can assist with the format and delivery of your session



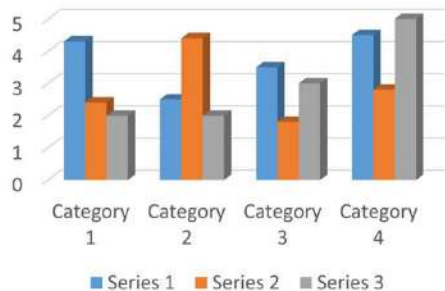
CRITIQUE

*Fakey McFakeson
School of Awesome
Madenup University*



"Why Having a Really Long and/or Complex 3MT Title is Not a Good Idea and the Reasons Why You Should Stick With Something Short, Sharp, Punny and Memorable."

This Is A Chart

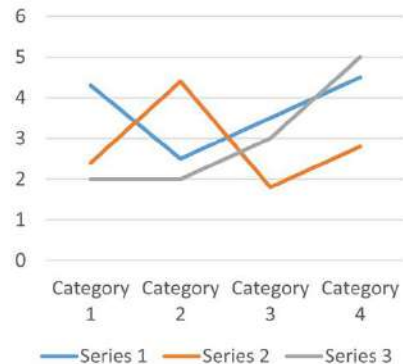


**New seatbelt design:
45% less car accidents!!**

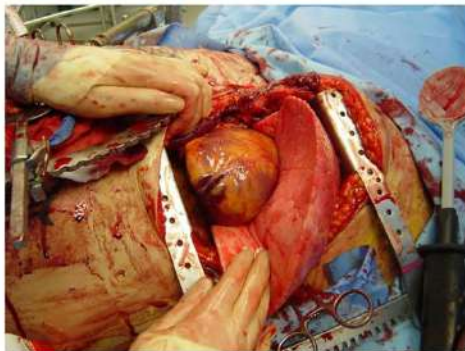


MORE WORDS. SO MANY WORDS. DID YOU KNOW A TYPICAL THESIS IS AROUND 80,000 WORDS? WOW. THAT'S A LOT OF WORDS.

This Is Another Chart



Here's a lot of text with a lot of numbers like 15,698 & 103,774. Who likes percentages? I do! 24% of 33 years olds reading this agree that 118% of this part of the slide should go.



Example: Fullscreen



Example: Fullscreen

California: Beware the Green Goblin—aka Harmful Algal Blooms

August 12, 2010 | Photo: Photos

Lake Erie's Toxic Green Slime is Getting Worse With Climate Change

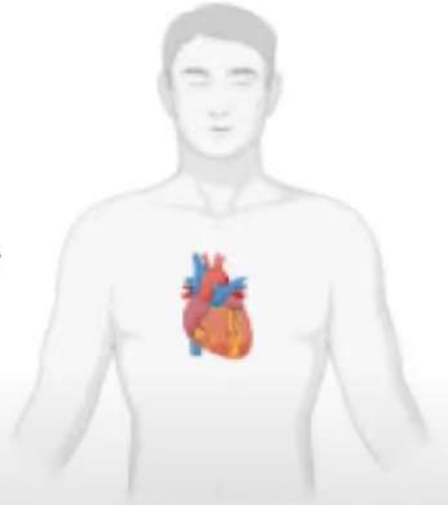
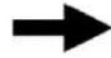
"Don't Touch The Water": toxic algae bloom covers Maumee River



Example: Fullscreen



Example: $x+y=z$



Needs a new heart

Controlled heart growth

New functional heart!

Example: $x+y=z$



FloodWise



Restore
Nature

+

Reduce
Floodwaters

→

Resilience for the
future

zoom

Example: $x \rightarrow y$



**FOG deposits inside
of sewer lines**



Sewer backups

zoom

Example: $x \rightarrow y$



**All is Fair in Wilt
and War**



Example: $x \rightarrow y$

1900



2020



Evelyn

Limited Gene Therapy



2000

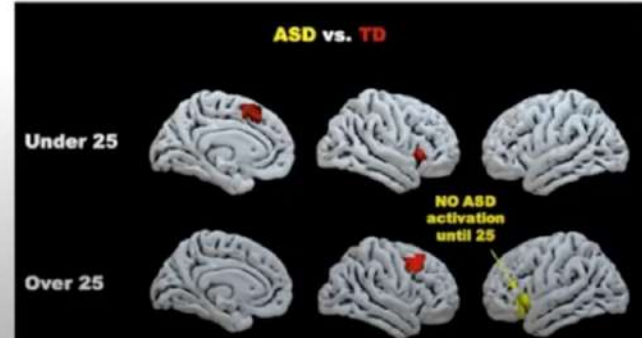
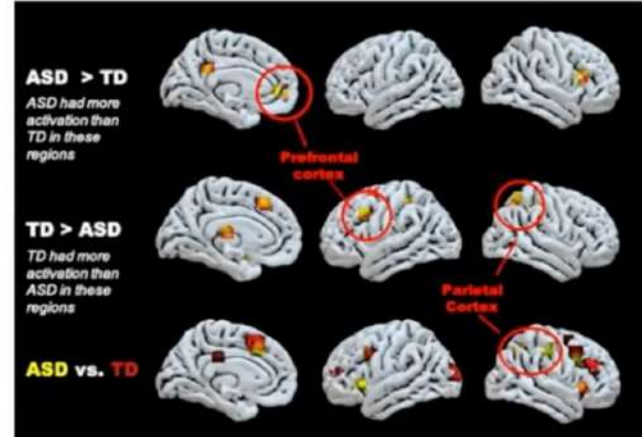


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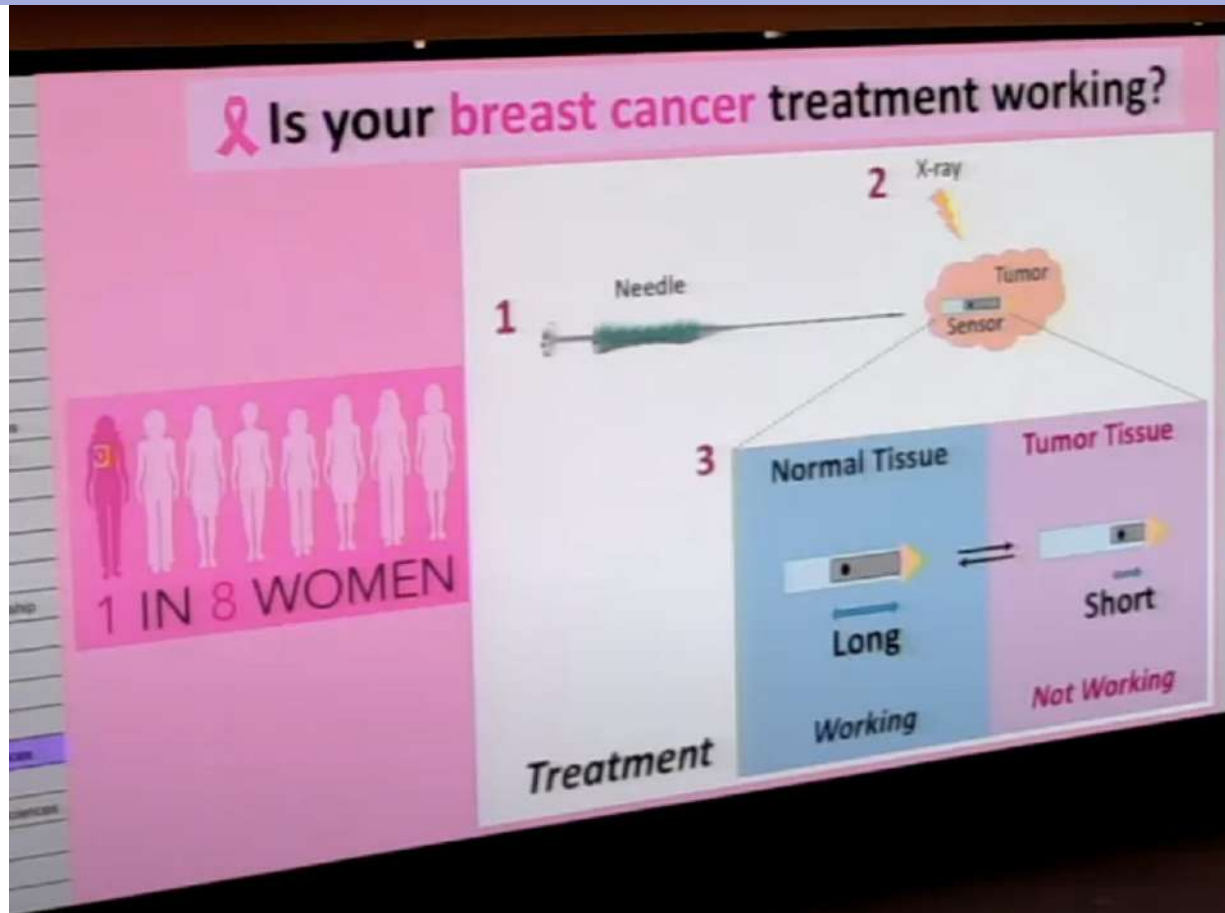


Affordable Gene Therapy

Example: Problem / $x+y=z$

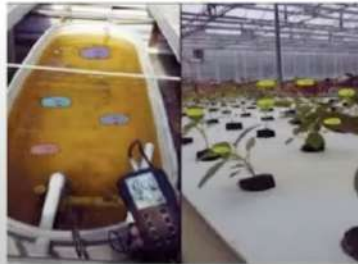


Example: Problem / $x+y=z$

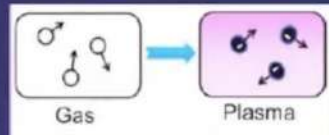


Example: complicated procedure

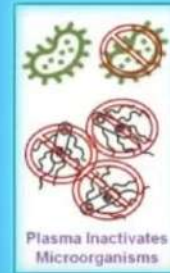
**HYDROPONIC
SWEET BASIL**



**+ COLD PLASMA
TECHNOLOGIES =**



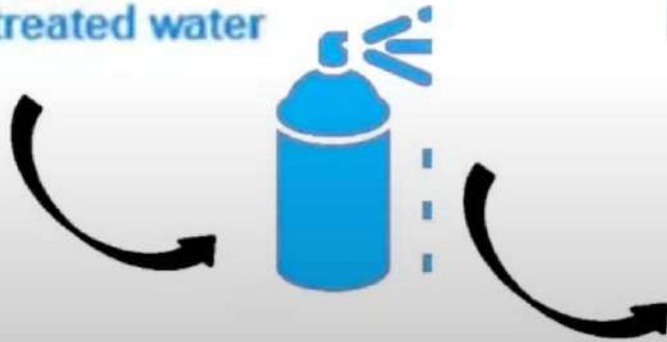
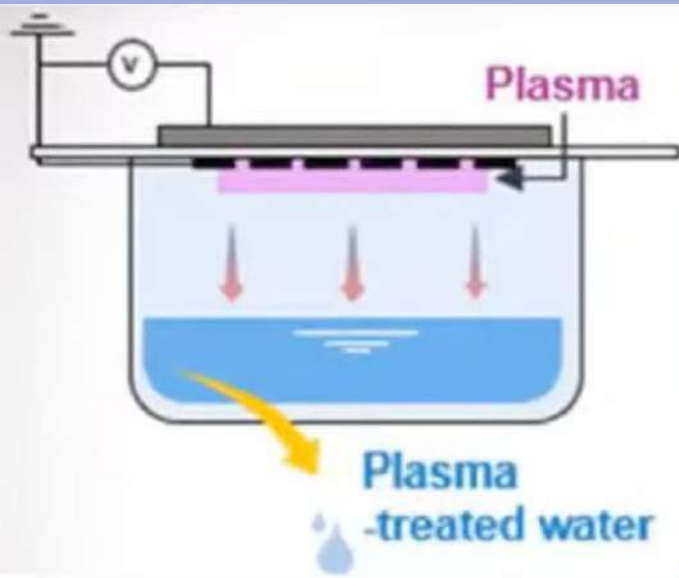
**SAFER AND HIGH
QUALITY
HYDROPONIC
SWEET BASIL**



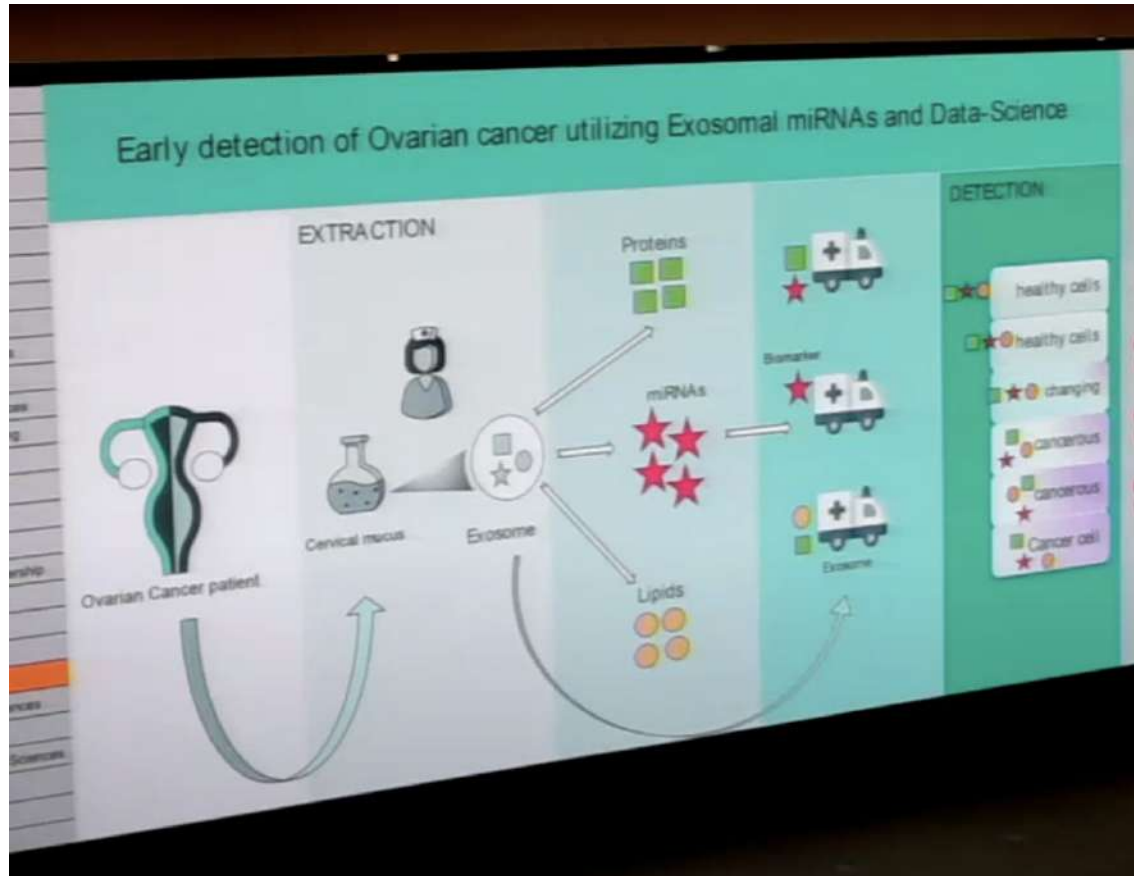
Control

Plasma-
treated

Example: complicated procedure

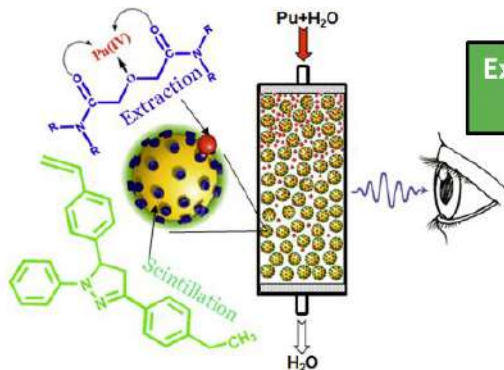
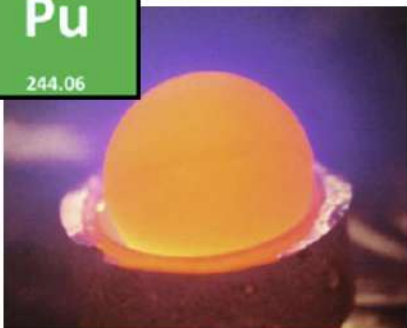
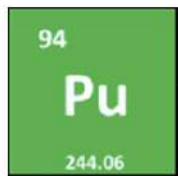


Example: complicated procedure

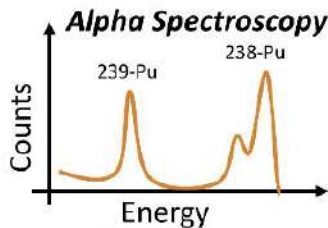
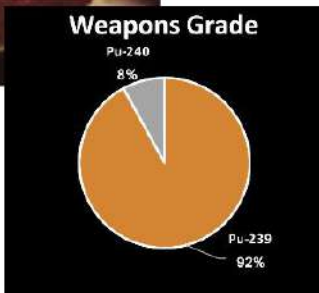
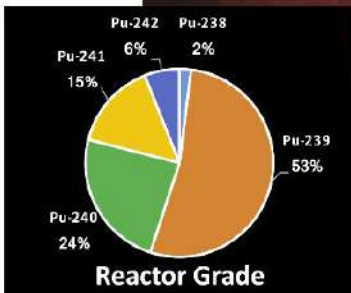


CRITIQUE

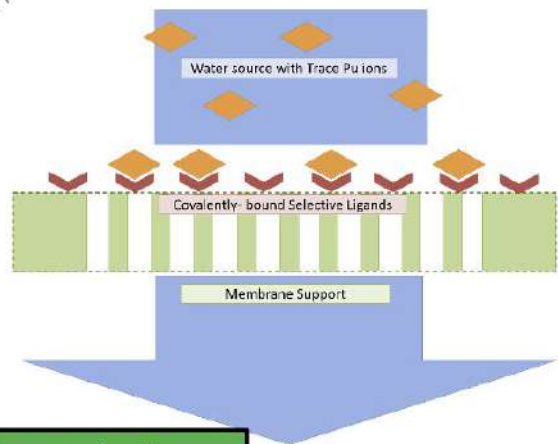
Innovative Materials for the Screening of Plutonium in Water Sources



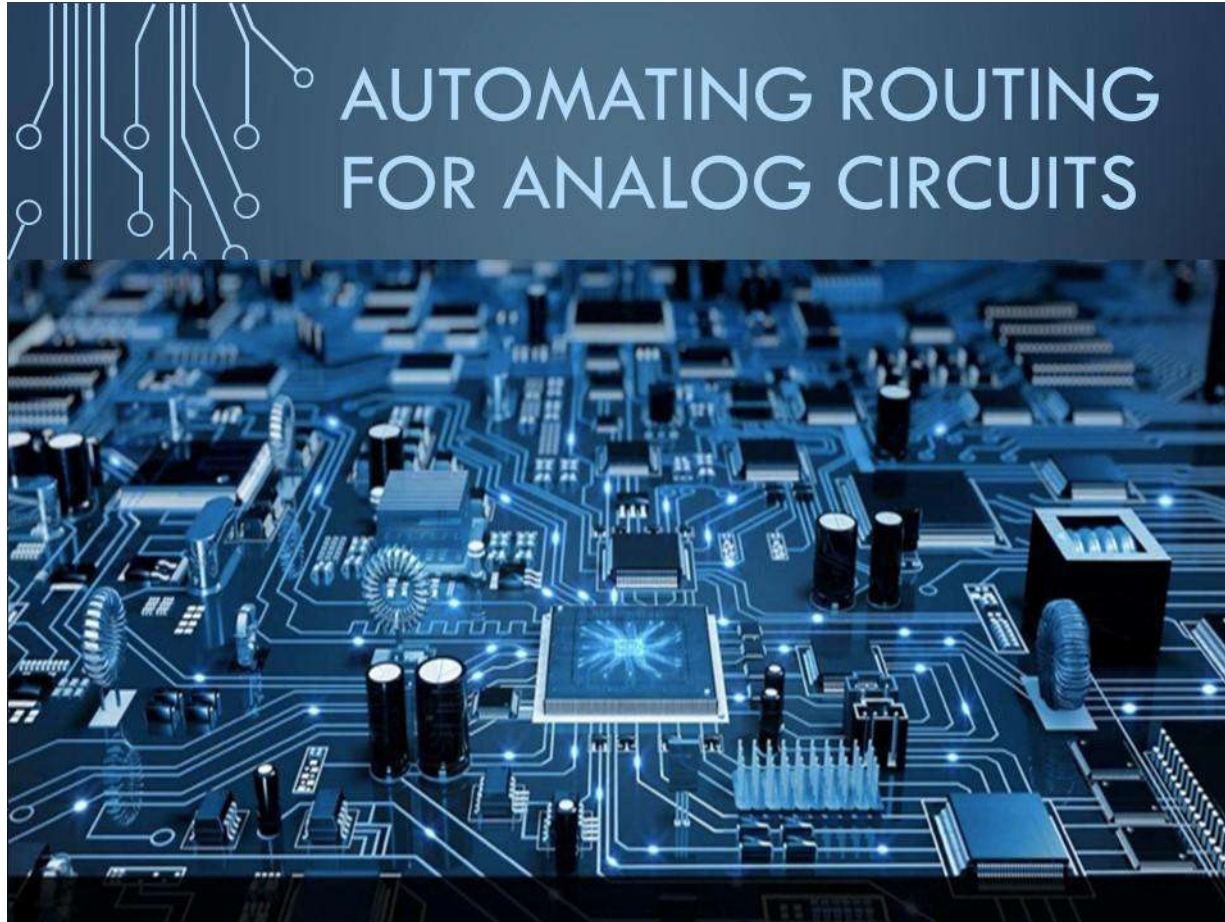
Extractive "Scintillating" Resin for real-time monitoring



Polymer Membranes for Pu extraction/isotopic determination



CRITIQUE



CRITIQUE

Modeling the recovery of Anaerobic Work Capacity in Cycling

Train better



Avoid premature fatigue

Optimize performance

Maximize:

- Power output
- Time to exhaustion

Minimize:

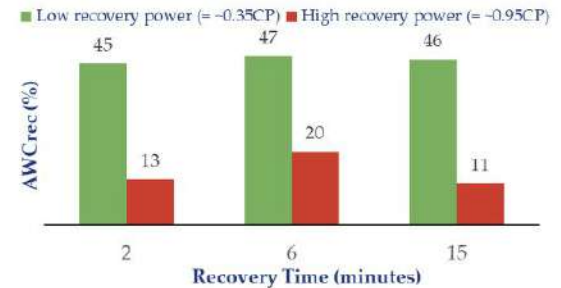
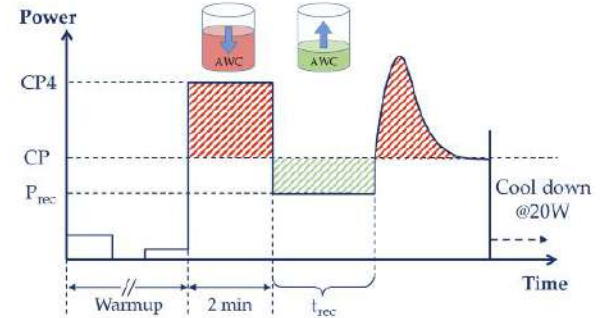
- Total time
- Fatigue



Meet race goals



Optimal performance on race day




CRITIQUE



Ying-Ying
From Hong Kong
Parents speak Canto

This diagram shows a thought bubble containing two pitch contours. The first contour, labeled '2', is a red line that starts at a low pitch and rises to a high pitch. The second contour, labeled '5', is a blue line that starts at a low pitch and rises to a slightly higher pitch.



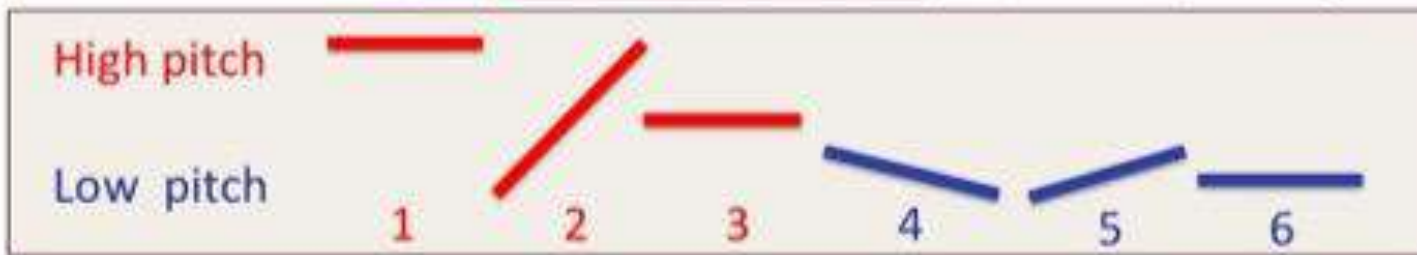
Vivian
From Vancouver
Parents speak Canto

This diagram shows a thought bubble containing a large black question mark, indicating that the pitch contours for this individual are unknown or to be determined.



Mike
From Vancouver
Parents speak English

This diagram shows a thought bubble containing three pitch contours. The first contour, labeled '4', is a blue line that starts at a high pitch and falls to a low pitch. The second contour, labeled '5', is a blue line that starts at a low pitch and rises to a slightly higher pitch. The third contour, labeled '6', is a blue horizontal line at a low pitch.



High pitch

Low pitch

1 2 3 4 5 6

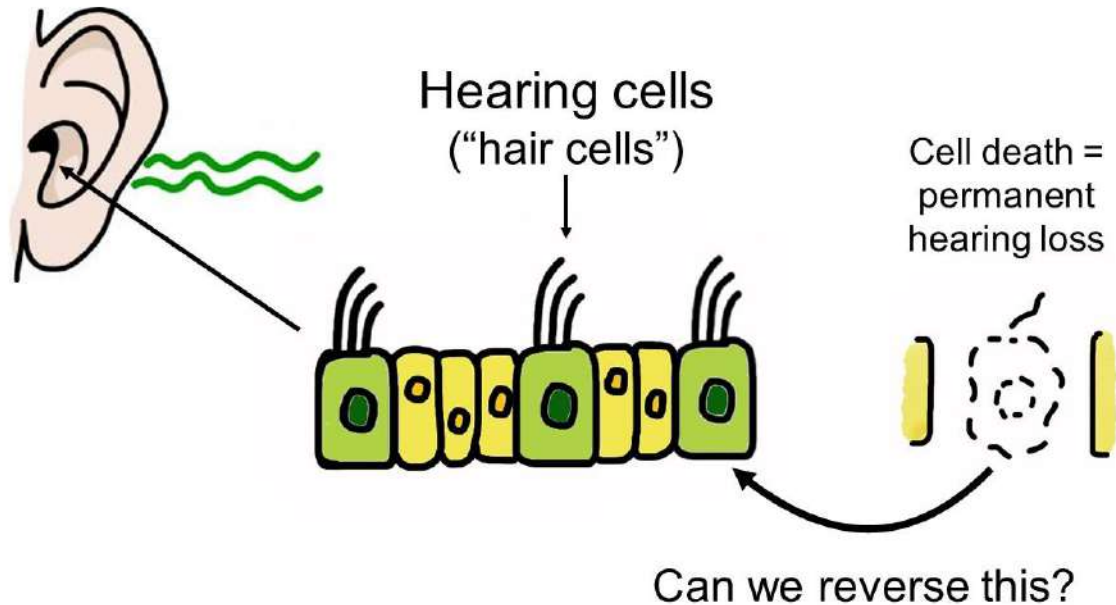
This legend defines the pitch contours used in the diagrams. It shows a horizontal red line for 'High pitch' and a horizontal blue line for 'Low pitch'. Below these are six numbered pitch contours: 1 (high horizontal), 2 (low to high rise), 3 (high horizontal), 4 (high to low fall), 5 (low to high rise), and 6 (low horizontal).

CRITIQUE

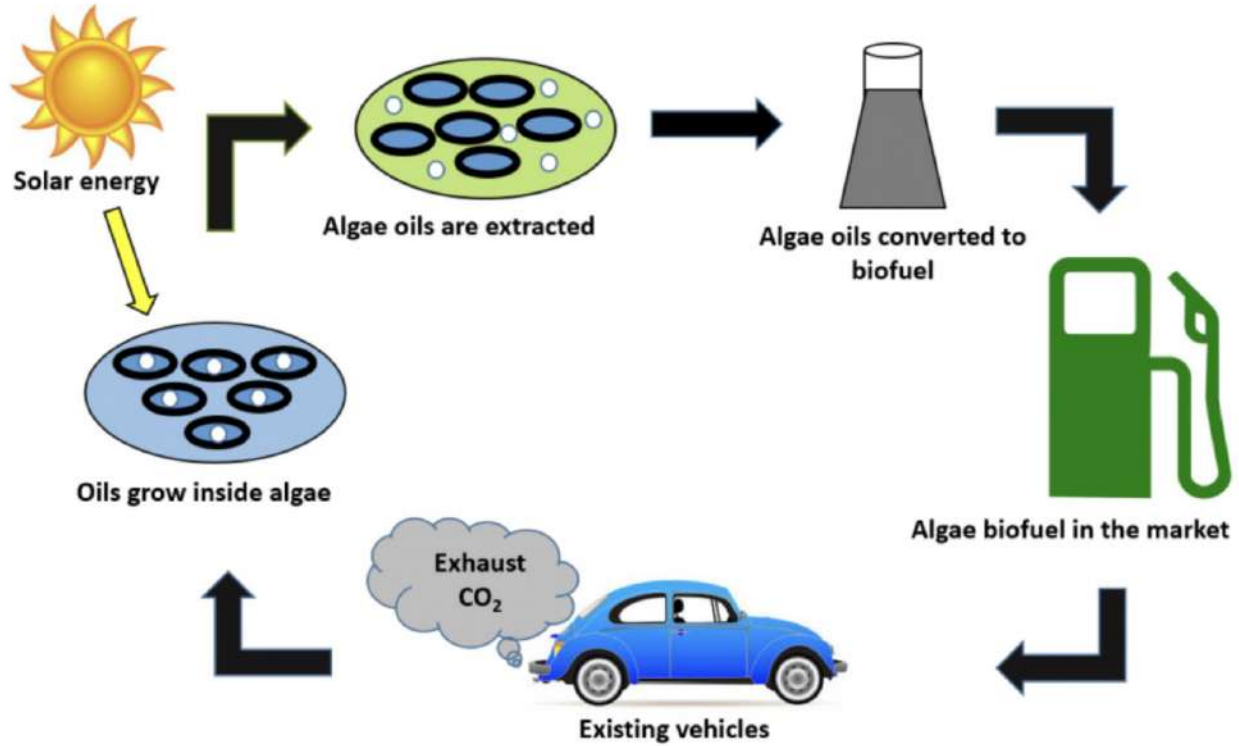


CRITIQUE

Can you hear me now?: Development and regrowth of cells for hearing



CRITIQUE



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Creative Technologies Librarian
ksheaff@clemson.edu

