

# DNA Sequencing and Precision Medicine

Name: \_\_\_\_\_

Date: \_\_\_\_\_

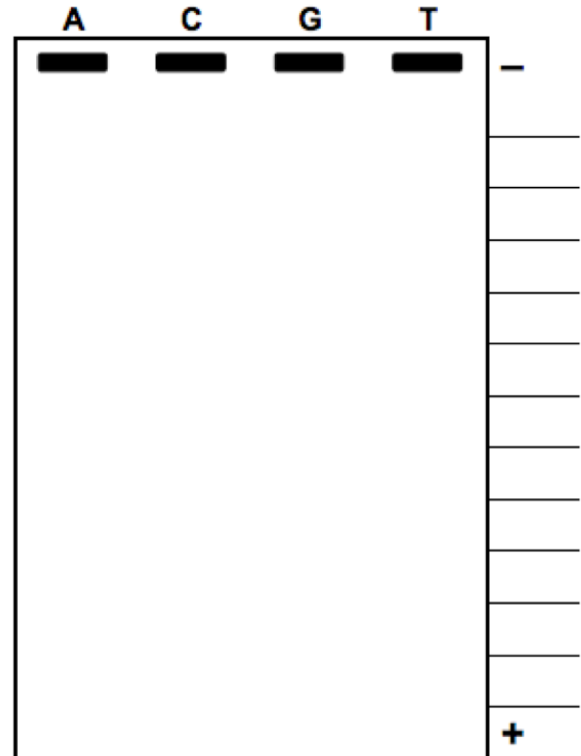
## Cara Greene Video Clip 1

How did DNA sequencing affect Cara Greene and her family?

## Sequencing Activity 2 - Part 1

Your table group has received the DNA sequence of a patient with an unknown genetic disorder. Use the DNA sequencing gel to copy the band pattern and determine the sequence of the DNA.

DNA sequencing gel



Our patient number is: \_\_\_\_\_

Our DNA sequence is:

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## Cara Greene Video Clip 2

Cara Greene has a mutation in her SLC52A2 gene.

What is the normal job of the protein that this gene codes for?

What are Cara's symptoms?

What is the treatment for her disease?

## Sequencing Activity 2 - Part 2

Each group in class just sequenced imaginary DNA from the same gene (SLC52A2, a vitamin transporter) in different patients. Your job as part of the team of doctors and scientists caring for these 6 patients is to compare them to the same gene from Cara Greene, the patient in the video who was diagnosed with Brown-Vialetto-Van Laere syndrome (BVVLS).

Patient	Sequence	Diagnosis/Next steps
Cara Greene	CGATACTGGTGC	

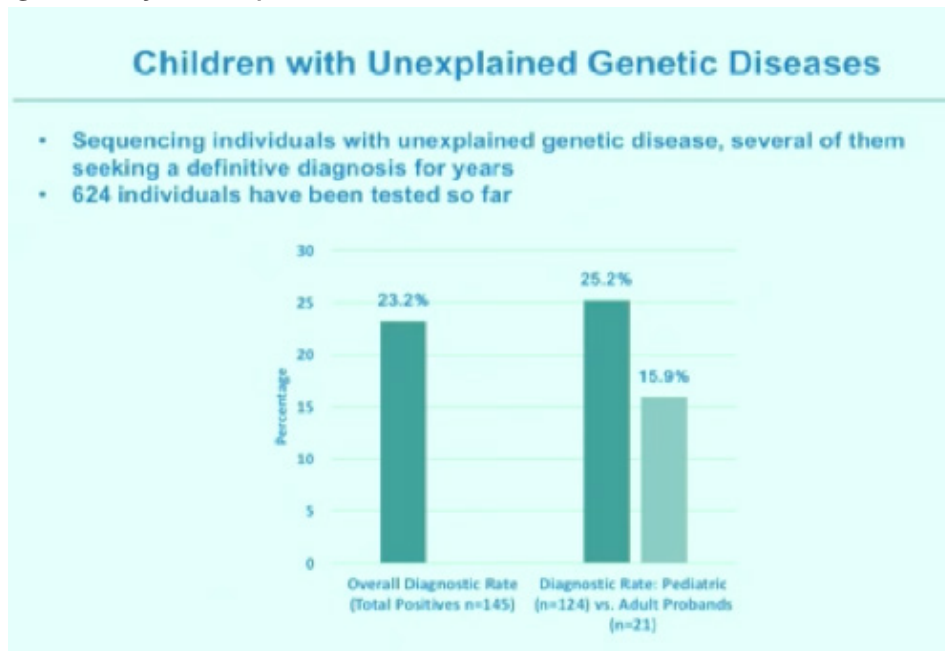


Who should be sequenced?

I think EVERYBODY / NOBODY / ONLY PEOPLE WHO \_\_\_\_\_  
should have their genome sequenced.

What do I think <b>before</b> the graph/video?	What do I think <b>after</b> the graph/video?

Figure Analysis Template 2



The specific question being asked in the experiment represented here is:

How do you think scientists got the data presented in this graph?

When you compare the diagnosis rate of children and adults, what do you learn?

What questions does this graph lead you to ask?

