



**SHEILA NIRENBERG, Ph.D.**

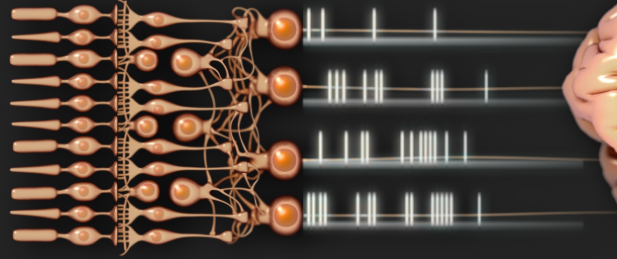
Dept. of Physiology And Biophysics, Weill Medical College of Cornell University

There are 2 million people in the US with advanced-stage blindness.

For these patients, their best hope right now is through prosthetic devices.



IMAGE



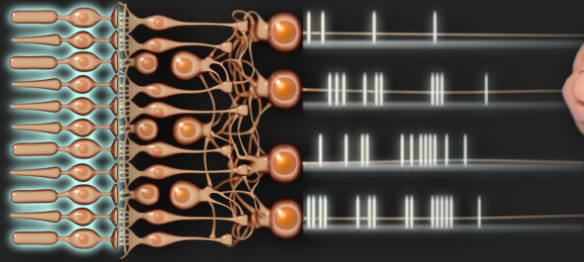
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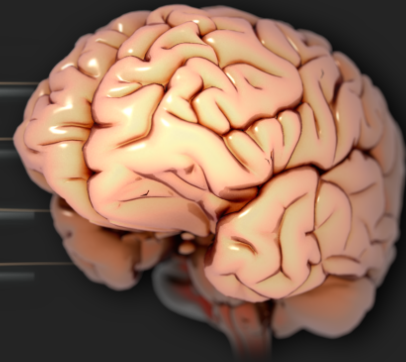
BRAIN



IMAGE



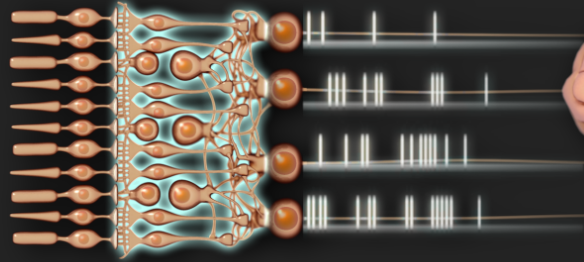
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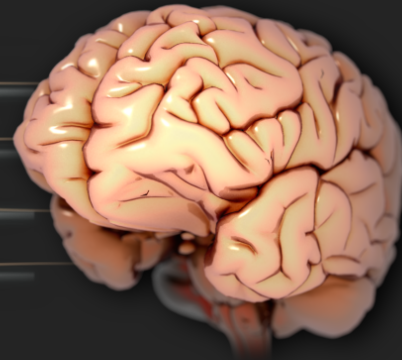
BRAIN



IMAGE



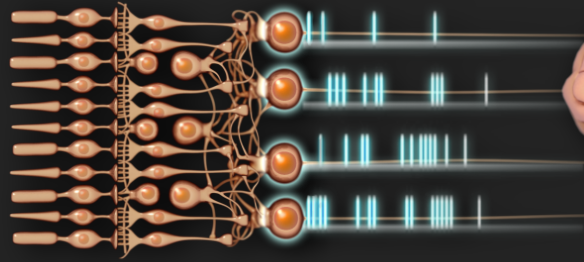
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BRAIN



IMAGE



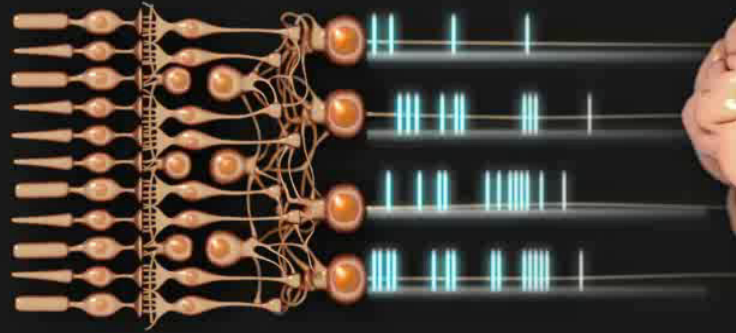
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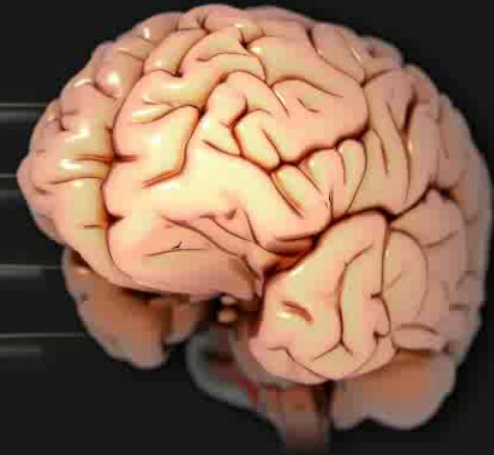
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IMAGE



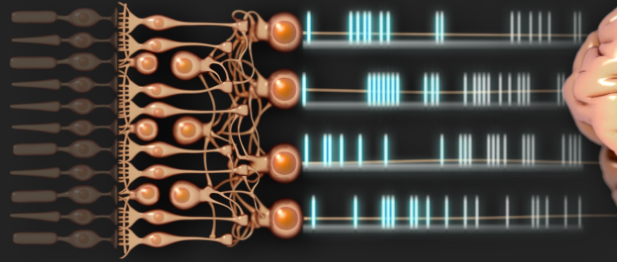
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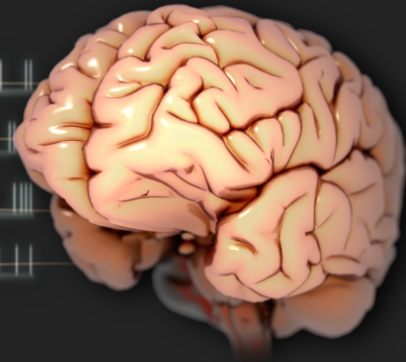
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IMAGE



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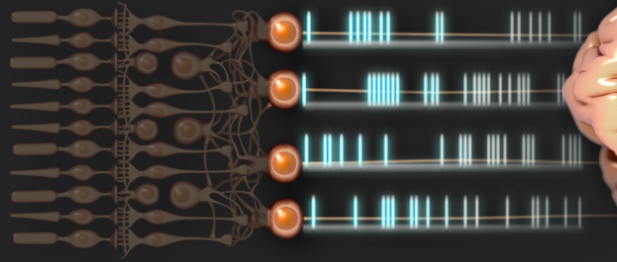


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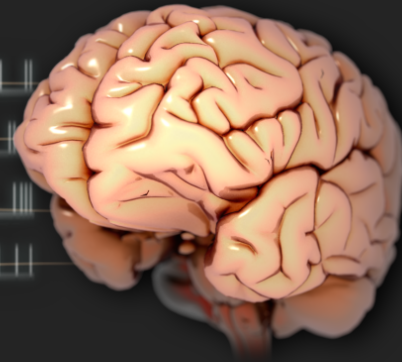




IMAGE



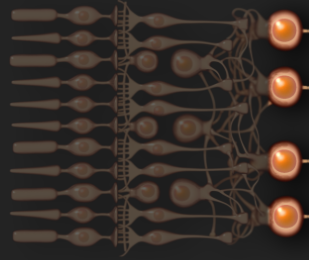
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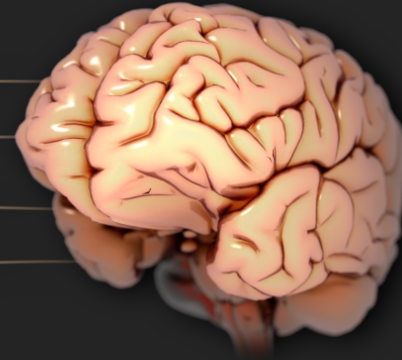
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IMAGE



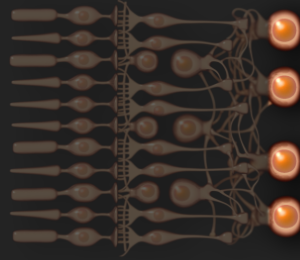
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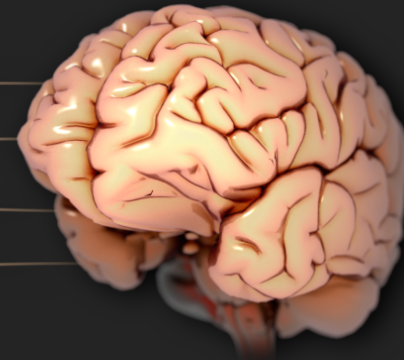
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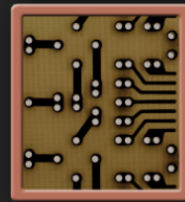
IMAGE



RETINA



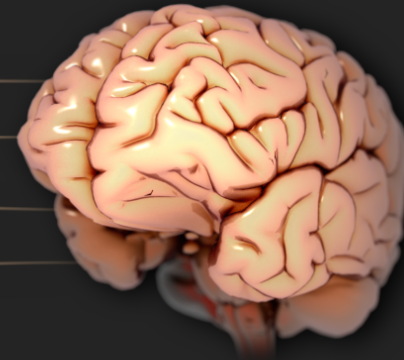
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ENCODER

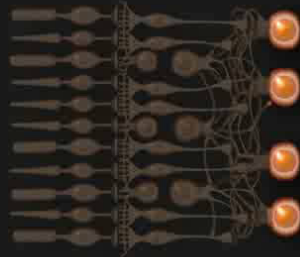


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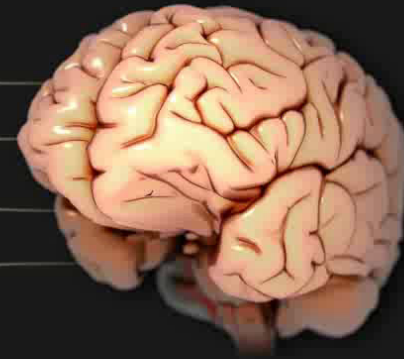




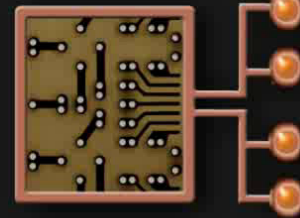
IMAGE



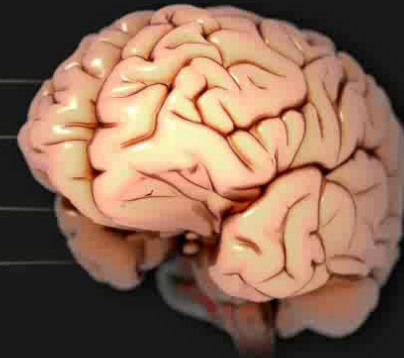
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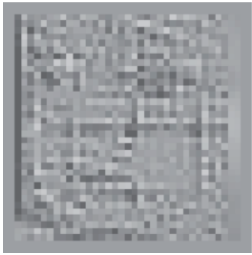


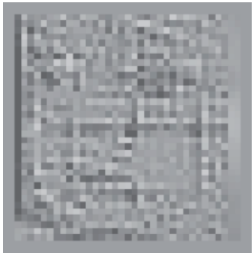
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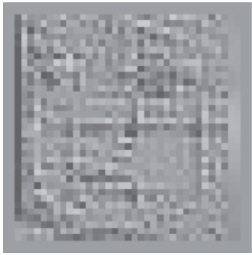




Standard prosthetic



Standard prosthetic



Standard prosthetic

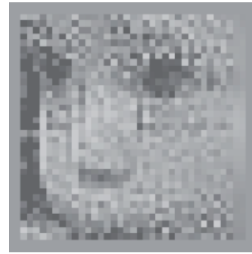


Original image





Standard prosthetic



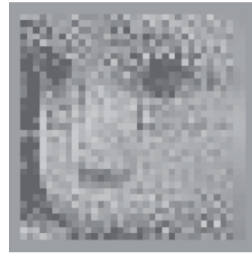
Original image



Standard prosthetic



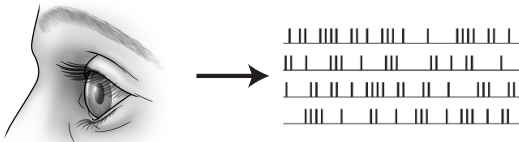
Our prosthetic



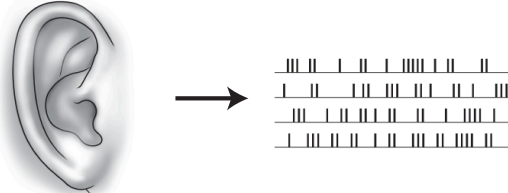
Original image

# Generalization of the strategy to other neurological disorders

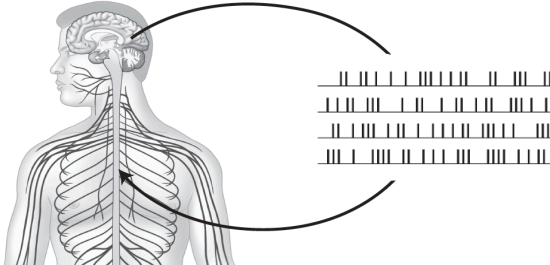
Vision



Hearing



Movement



⋮

## Acknowledgments

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Illya Bomash

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Gene Fridman

Zack Nichols

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Adam Jacobs

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