



# Texas School for the Blind and Visually Impaired Outreach Programs

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## Texas School for the Blind & Visually Impaired Outreach Programs

CVI Study Group 1: CVI Symposium- Lotfi  
Merabet

October 15<sup>th</sup>, 2018

Facilitated by

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International numbers available: <https://zoom.us/j/VN6WUUvV>

# CVI Study Group 1: CVI Symposium – Lotfi Merabet

October 15, 2018

Facilitated by:

Sara Kitchen and Lynne McAlister, VI Education Consultants  
Texas School for the Blind and Visually Impaired

## Today's Agenda

- New PSA!
- CVI Symposium: The role of the thalamus
- Planning for the next study group

## PSA

### Connectivity

- Brain processes information by cycling information to different areas
- CVI: this cycling is interrupted
- <http://www.perkinselearning.org/cvi/educators/symposium/2018>  
2018 Symposium\_Bauer\_Bennett\_Merabet 8:36- 12:30

## Visual Pathways

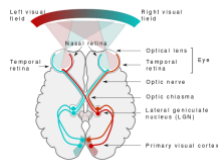


Figure 1: Image of visual pathways

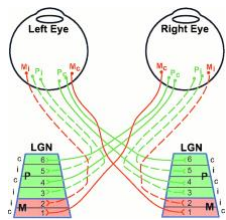


Figure 2: Image of visual pathways

Parvo Cells	Magno Cells
Majority of cells in LGN: 85-90%	Minority of cells in LGN: 10-15%
Small receptive field	Large receptive field
Slow conduction rate	Fast conduction rate
Low contrast sensitivity	High contrast sensitivity
Able to differentiate detailed stimuli	Able to differentiate only coarse stimuli
Color sensitive	Color blind

## Thalamus



Figure 3: Photo of bathroom

## CVI Systems

- Vision affects all Development
- CVI during Development vs. Acquired
- CVI as Office Building
- <http://www.perkinselearning.org/cvi/educators/symposium/2018>  
2018 Symposium\_Bauer\_Bennett\_Merabet 18:41-24:44

## Enhance Plasticity

- Multisensory and Sensorimotor
- Environmental challenges
- Exercise

## Ocular VI or CVI?

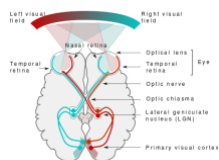


Figure 4: Image of visual pathways

## Next Study Groups: back to the 3-4 time slot on Mondays

December 10<sup>th</sup>, 2018    February 11<sup>th</sup>, 2019    April 15<sup>th</sup>, 2019

In the chat box:

- Write your email/name and the date when you want to let the group look at your student and give you ideas for things to try. Lynne will contact you!
- Write your email/name and a special topic in CVI if you would geek out, like Lynne did.

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CVI Study Group 1: CVI Clinic 2018-19

October 15th, 2018  
Thank you for joining us!

## References:

- CVI\_Symposium\_Bauer\_Bennet\_Merabet  
<http://www.perkinselearning.org/cvi/educators/symposium/2018>
- Thalamic Attention  
<https://www.coursera.org/lecture/neurobiology/thalamic-attention-gNi4P>
- Parvo and magno diagrams:  
Early divergence of magnocellular and parvocellular functional subsystems in the embryonic primate visual system. Claire Meissirel, Kenneth C. Wikler, Leo M. Chalupa, Pasko Rakic  
Proceedings of the National Academy of Sciences May 1997, 94 (11) 5900-5905; DOI:  
10.1073/pnas.94.11.5900 <http://www.pnas.org/content/94/11/5900>  
<https://www.ucalgary.ca/pip369/mod2/visualpathways/magnoparvo>

# Texas School for the Blind & Visually Impaired Outreach Programs



Figure 5: TSBVI logo



This project is supported by the U.S. Department of Education, Special Education Program (OSEP). Opinions expressed here are the authors and do not necessarily represent the position of the Department of Education.

Figure 6: IDEAs that Work logo and OSEP disclaimer.