



# THE HOLOS EXPERIENCE

Achieving balance with good medicine

Joseph Cohen D.O.  
Medical Director  
Holos Health & Journey 2 Life  
Boulder, CO

# The Endocannabinoid System

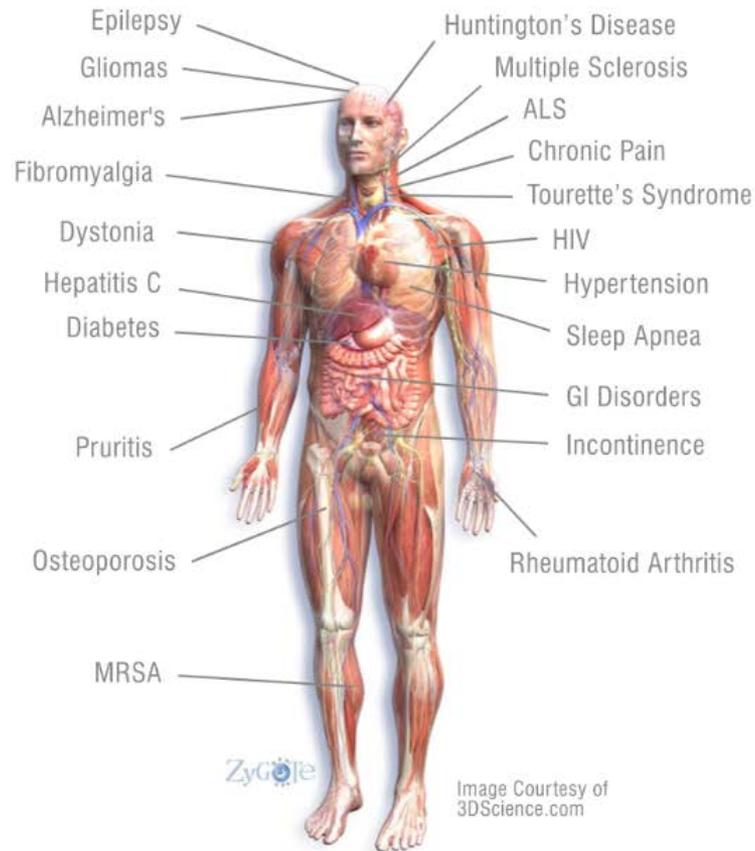
- Animals have produced cannabinoids for approximately 600 millions of years,
  - Anandamide and 2AG
  - balance and homeostasis (adaptigen)
- Plant came along 35-50 million years ago- a perfect match.
- Receptors are found throughout our body: CB1 receptors commonly in brain & CB2 in our immune system, etc.
- Due to its ubiquitous activity it provides a bridge between body and mind.
- One of the most significant receptor systems in our body that is left out of medical school curriculum (nutrition minimized)

# Emerging Clinical Applications For Cannabis and Cannabinoids

## A Review of the Recent Scientific Literature

Sixth Edition

By Paul Armentano, NORML Deputy Director



With Greg Carter, M.D., Dustin Sulak, D.O., and Estelle Toby Goldstein, M.D.

# Example: Glutamate Excitotoxicity

- Excitotoxicity: Nerve cells are damaged or killed by excessive stimulation by neurotransmitters such as glutamate.
- Glutamate excitotoxicity is found in the following conditions:
  - Spinal cord injury, stroke, traumatic brain injury, neurodegenerative diseases such as Alzheimer's, MS, ALS, Parkinson's, Huntington's Disease, ETOH and benzodiazepine withdrawal (studies needed!)
- Cannabinoids actually can prevent glutamate excitotoxicity and can be used in both prevention and treatment of these diseases.
- It is an ideal medicine to give patients wanting to wean from benzodiazepines, narcotics and ETOH.
  - Reduces need for these substances and eases withdrawal symptoms
  - Prescription drugs- a leading cause of death in the US

# Carl's Story



Carl: 2011

- Obesity
- Type 2 Diabetes
- CVD (hypertension and hyperlipidemia)
- Several years of heavy narcotic use after severe MVA w/ addiction (disabled s/p injuries)
- Several years of heavy benzodiazepine use w/ addiction
- Feeling depressed and hopeless

Care with our clinic including:

- Nutritional and exercise support
- Nutritional supplementation
- Medical cannabis
- Counseling while weaning off addictive meds

# Carl's Story



Carl 2013

- Normal Body Composition
- Off all medications with reversal of diabetes, hyperlipidemia, hypertension and depression
- Off all narcotics and benzodiazepines
- His only medication is grown in his garden
- Writing children's books
- In love!



# Honorable Mentions

- Hadarim Nursing Home: Israel
  - Treatment in many age related disorder
  - Elimination of 39 drugs to patients, better results
  - Average reduction of 1.7 meds per patient per day
- Potential use as a chemotherapy agent
  - Apoptosis, decrease blood flow, Id-1 gene
- The perfect exit drug
  - Narcotics, benzos, anti-depressants, sleep meds, EHOH abuse
- Children with seizures, autism

# Conclusion

- **WE NEED STUDIES!!**
- Exciting time to practice medicine in Colorado
- Colorado can lead the way in research and development of cannabis medicine



Thank You