Cryptochrome and EMF

"Cryptochrome is a ubiquitous pigment in animals and plants. Plants use it to sense light to optimize their ability to photosynthesize. Animals use it to sense the direction of the Earth's magnetic field. Both animals and plants also use it to regulate their body clocks, which anticipate dawn and dusk to switch metabolism between day and night modes. In animals, it regulates the sleep-wake cycle and also the immune system, which has peak activity during the night phase (Koukkari and Sothern 2006).

Unfortunately, radio waves badly upset the cryptochrome molecule to affect all of these functions."

Andrew Goldsworthy Testimony April 2010

What is cryptochrome?

- Plants have cryptochromes
- Shedding light on cryptochromes
- Cryptochromes, magnetic sensing
- Human eye senses Earth's magnetism
- Humans have cryptochrome, ancient protein
- Cryptochromes help cell regulate DNA repair

Vimeo:
RESONANCE
Magnetite, Cryptochrome, Melatonin, EMF

Cryptochrome and Circadian Functions

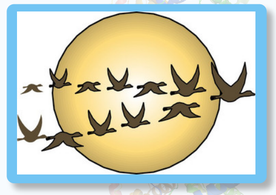
- Plant study
- Cell phones disturb bees
- Plant circadian entrainment
- Animal circadian entrainment
- Light and human cryptochromes
- Cryptochromes, circadian rhythms, mouse
- Cell phones, cryptochrome, melatonin, disease

Electronic Silent Spring
Cryptochrome, EMF, more

7 Ways Tech Threatens Populations

How do EMFs disrupt the natural world?

Cryptochrome and Magnetoception



- Superoxide mediator
- Compasses of birds
- Nature's inner compass
- MF intensity, cryptochromes
- How to See Magnetic Fields
- Robins can see magnetic fields
- Magnetosensitivity, circadian clock
- Magnetic fields light up "GPS" neurons
- Magnetic compass of birds, visual system
- Directional magnetoception, cockroaches
- Radical pair model of avian magnetoception
- Radical-pair mechanism of magnetoception
- Plants, MF sensitive in blue light, cryptochromes
- Cryptochrome 1a receptor, magnetoception, birds
- Migratory birds "see" compass with visual system
- Light-dependent magnetoception, zebra finches
- Cryptochrome, migratory birds, homing pigeons
- Magnetically-sensitive light reactions, cryptochrome
- Radical pair mechanism for avian magnetic compass
- Birds, cryptochrome, magnetoception, what we know
- Magnetic field sensed by gene, human cryptochrome

Home: ***Oscillatorium***
Newest version: ***this map***
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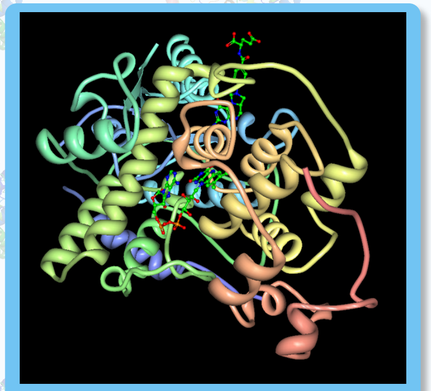

Simplified shape of cryptochrome molecule

EMF and Cryptochrome

- Birds, Bees, EM pollution
- Wireless Devices and Wildlife
- Base station power, cryptochromes
- One of the candidate mechanisms
- Cell phone radiation disturbs honey bees
- Magnetic intensity, cryptochrome, circadian rhythm
- Mobile phones, amplitude modulation, cryptochrome
- Article on bees, video, Dr. Goldsworthy, cryptochrome
- Cryptochrome involved as powerlines induce cancer via EMF
- Low intensity EMF induces cryptochrome to alter free radicals
- Light-dependent magnetosens., cryptochrome, circadian rhythms flies