



NAD TREATMENT CENTER

Innovators in Recovery & Wellness

NAD: The Life Force Molecule

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NAD Treatment Center

www.NADTreatmentCenter.com

(844)NAD-PLUS

ACKNOWLEDGMENTS

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DISCLAIMER

- **I AM NOT A DOCTOR.**
- **THESE STATEMENTS HAVEN'T BEEN EVALUATED BY THE FDA.**
- **THIS PRODUCT HASN'T BEEN APPROVED BY THE FDA.**
- **YOUR RESULTS MAY VARY.**
- **SOME STATEMENTS MAY NOT BE ACCURATE.**

Why is NAD⁺ important?

- There are very few molecules talked as much as NAD. (Metformin, Rapamycin, MTOR, GD11, NRF2)
 - Scientists at Harvard, MIT, Calico are working on it.
- NAD declines with age across species. It seems to be responsible for aging.
- The history on NAD supplementation goes back far!
- There is a huge impact on the brain.
- You feel it!
- The life expectancy is dropping and much of it is from a drug epidemic. NAD seems to be an answer. It works well with addiction.



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I was another miracle of NAD.

- I found NAD from sickness
- Lost my family in a car crash.
- I had these conditions
 - Depression
 - Lyme Disease
 - Chronic Fatigue Syndrome
 - Chronic pain
 - Opiate drug addiction

12 days after the first treatment

- I had an enormous recovery in all symptoms.
- I went from having 3 good hours a day to work, to having 10 hours.
- My intense pains were gone.
- I started thinking quickly and clearly. I felt superhuman.
- I started sleeping better.
- I came off of opiates and my dependency became minimal.

Later....

- Six months later in December 2013, David Sinclair's journal in Cell was published.
- I met an NAD scientist named Joel.
- I started to examine my tests on telomeres, DNA breaks and Mitochondria.

LET'S TAKE A DEEPER DIVE INTO NAD

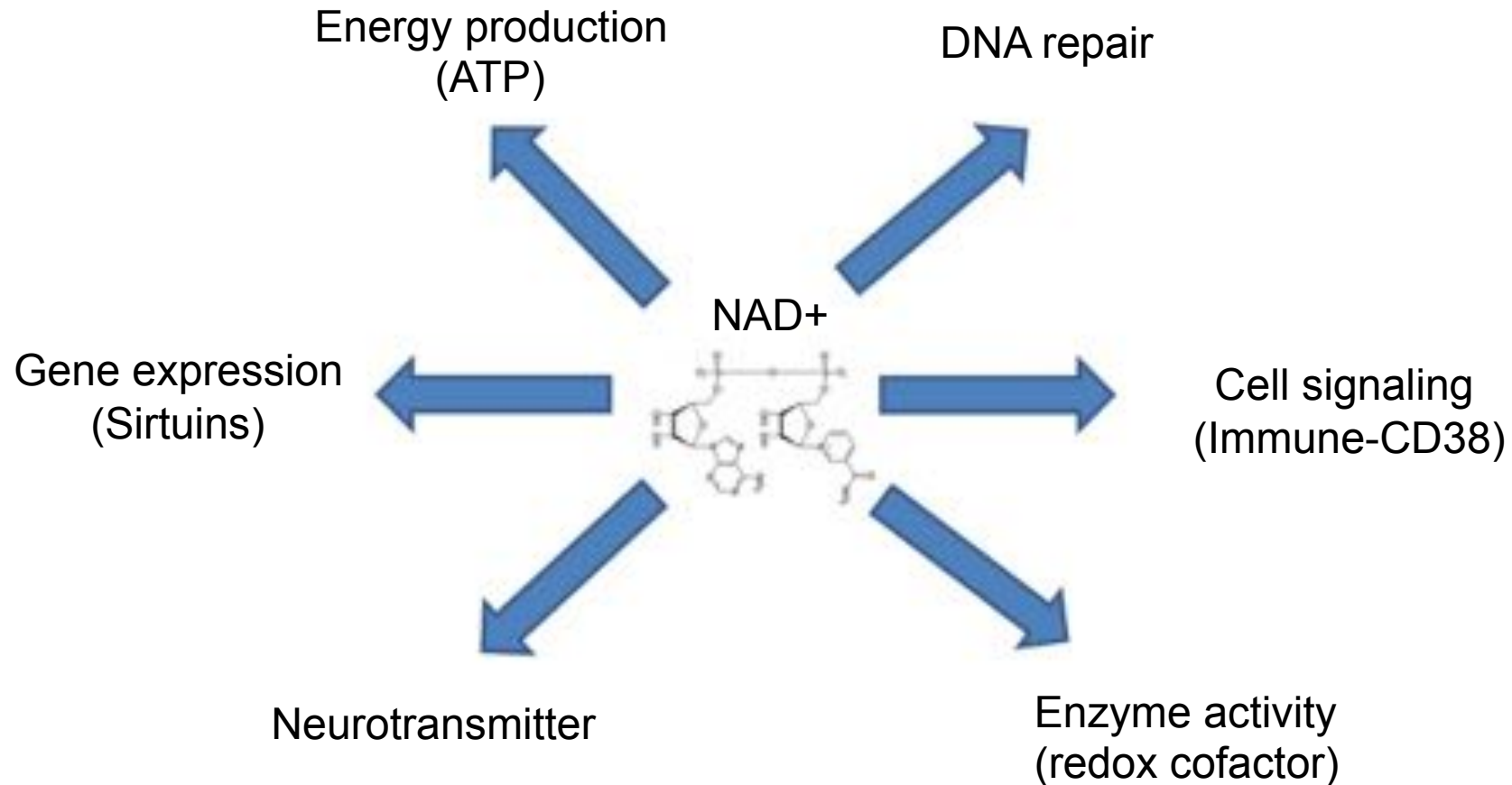
More than 1,000 metabolic processes are catalyzed by NAD

- Increases energy (ATP) in heart cells
- Repairs altered DNA and regenerates damaged cells
- One of the most potent antioxidants
- Lowers cholesterol and high blood pressure
- Stimulates the production of dopamine and serotonin
- Strengthens the immune system
- Stimulates nitric oxide production and improves blood flow especially to heart and brain

NAD function: Oxidation-reduction (redox) reactions

- Living organisms derive most of their energy from oxidation-reduction (redox) reactions, involving the transfer of electrons.
- Over 400 enzymes require the niacin coenzymes, NAD and NADP, mainly to accept or donate electrons for redox reactions.
- NAD functions most often in energy-producing reactions involving the degradation (catabolism) of carbohydrates, fats, proteins, and alcohol.
- NADP functions more often in biosynthetic (anabolic) reactions, such as in the synthesis of all macromolecules, including fatty acids and cholesterol.

What is NAD used for in the body?



Medical research has shown the following medical conditions to improve with NAD therapy:

- Chronic fatigue
- Muscle pain and weakness
- Joint pain and stiffness
- Headaches
- Depression
- Anxiety
- Alcohol and drug addiction
- Diabetes
- Sleep disturbance
- Memory loss (forgetfulness)
- Attention deficit
- Fevers, sore throats and swollen lymph glands
- Parkinson's disease
- Cancer

NAD⁺ & Sleep/wake cycles

Biological rhythms are established and maintained by a central clock consisting of around 20,000 pacemaker neurons in the suprachiasmatic nucleus (SCN)¹.

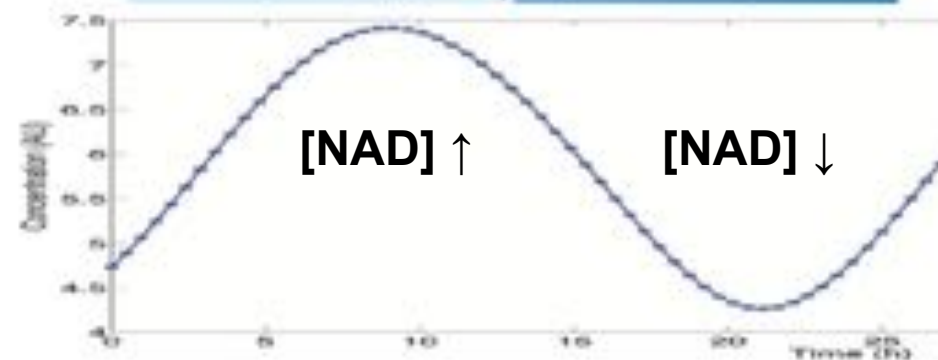
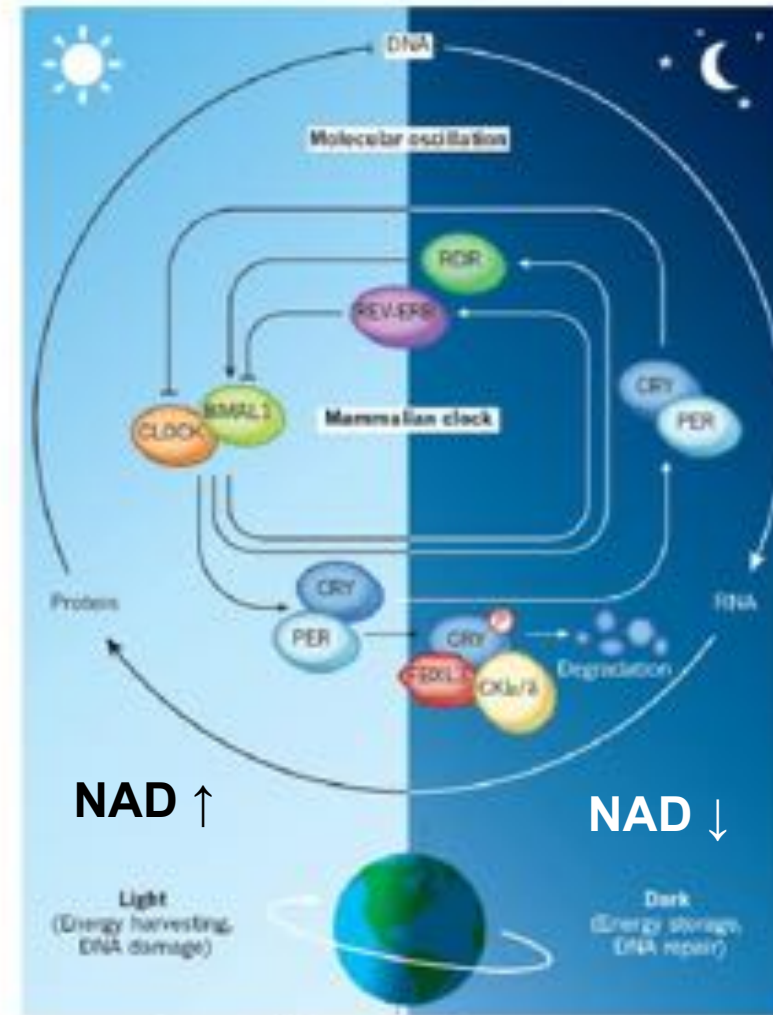
NAMPT/NAD drives the circadian clock feedback cycle through SIRT1 and CLOCK:BMAL1².

As the levels of NAD⁺ oscillate over the circadian cycle, the activity of SIRT1 oscillates, linking the metabolic state of the cell through an epigenetic mechanism to the circadian clock¹

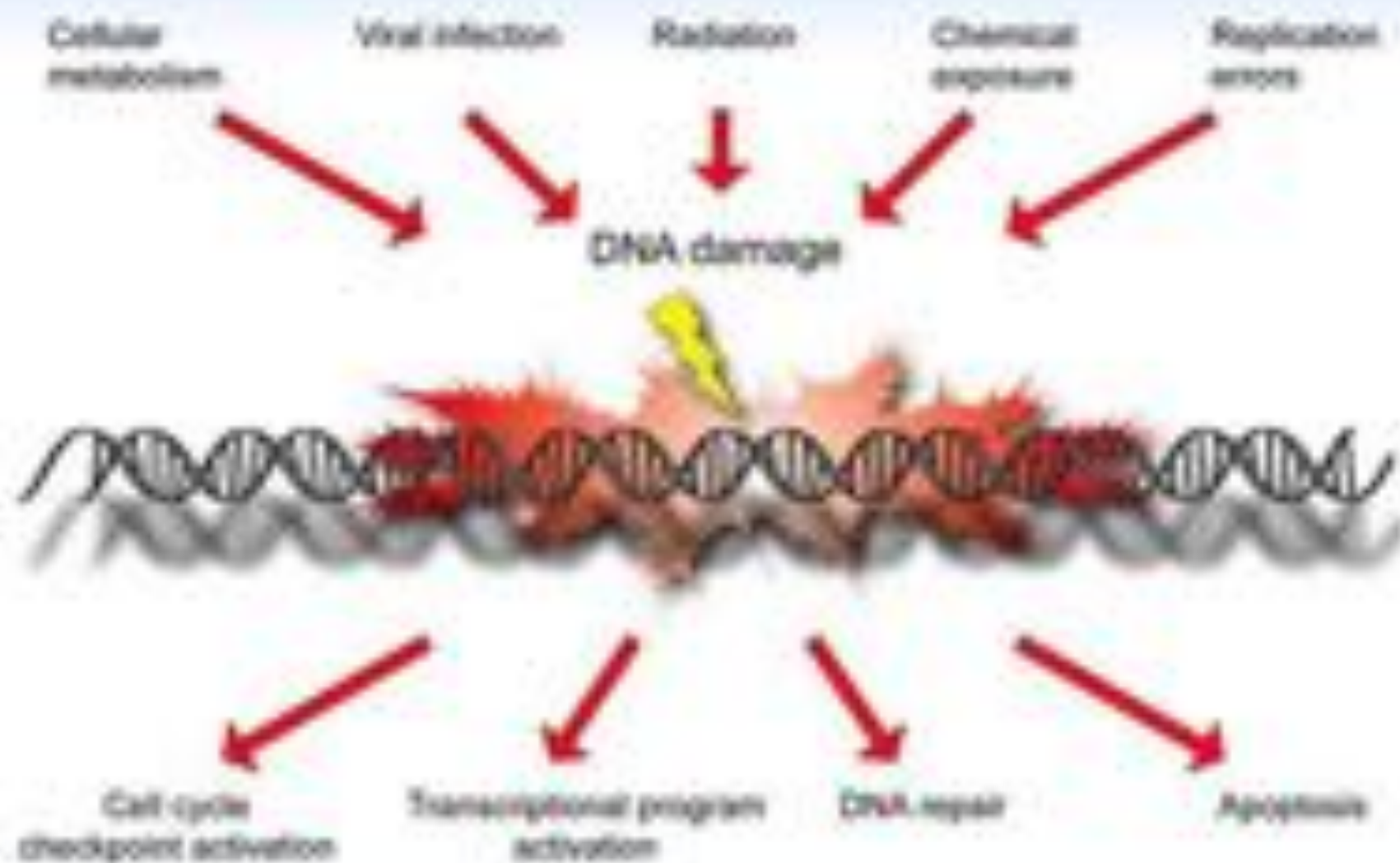
Circadian dysfunction has been linked to sleep disorders, depression, bipolar disorder and changes in cognitive function and memory formation¹.

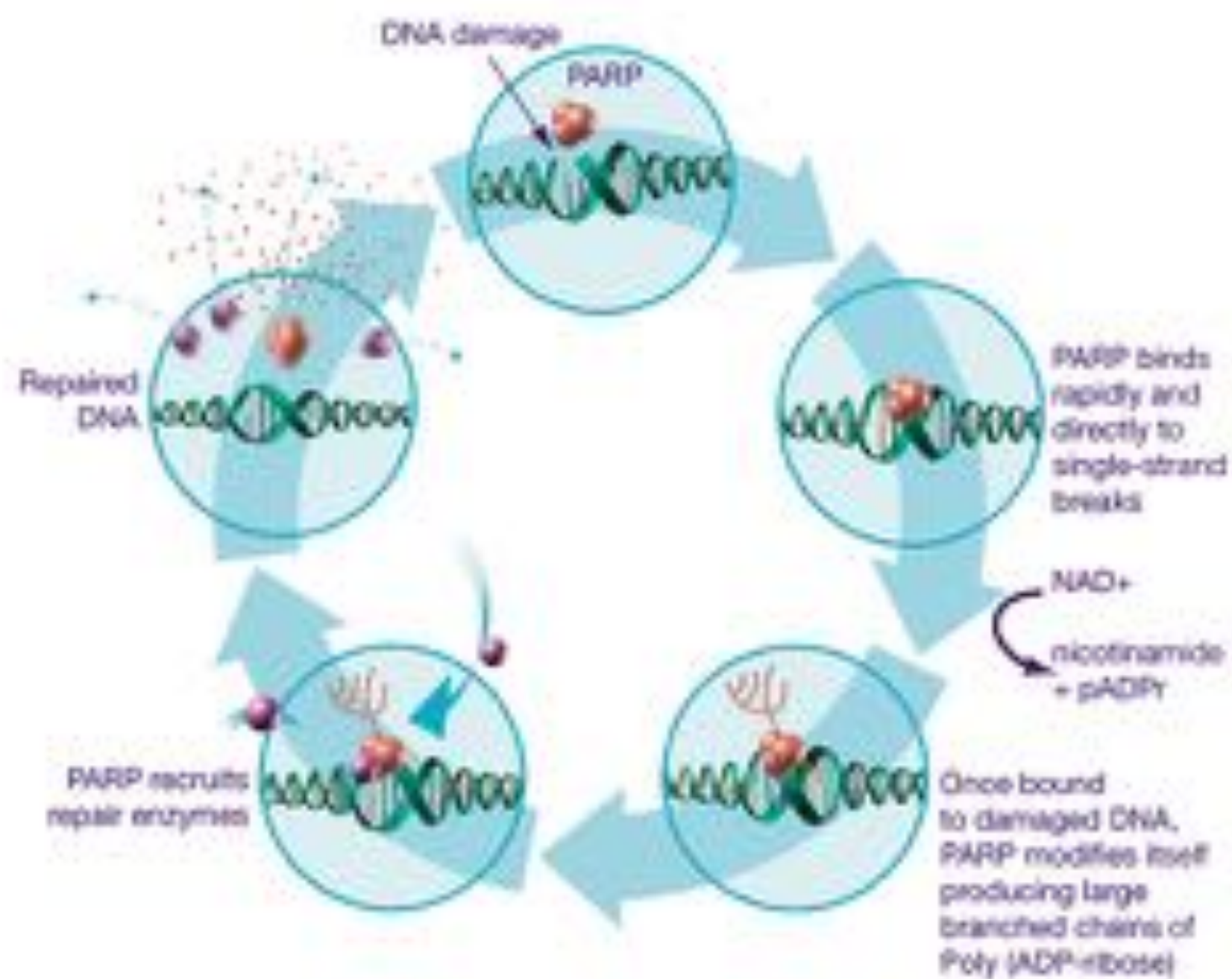
1. Masri et al Nature Reviews, Neurosci (2013), 14: 69-75

2.. Imai S. Biochimica et Biophysica Acta 1804 (2010) 1584-1590



DNA damage response





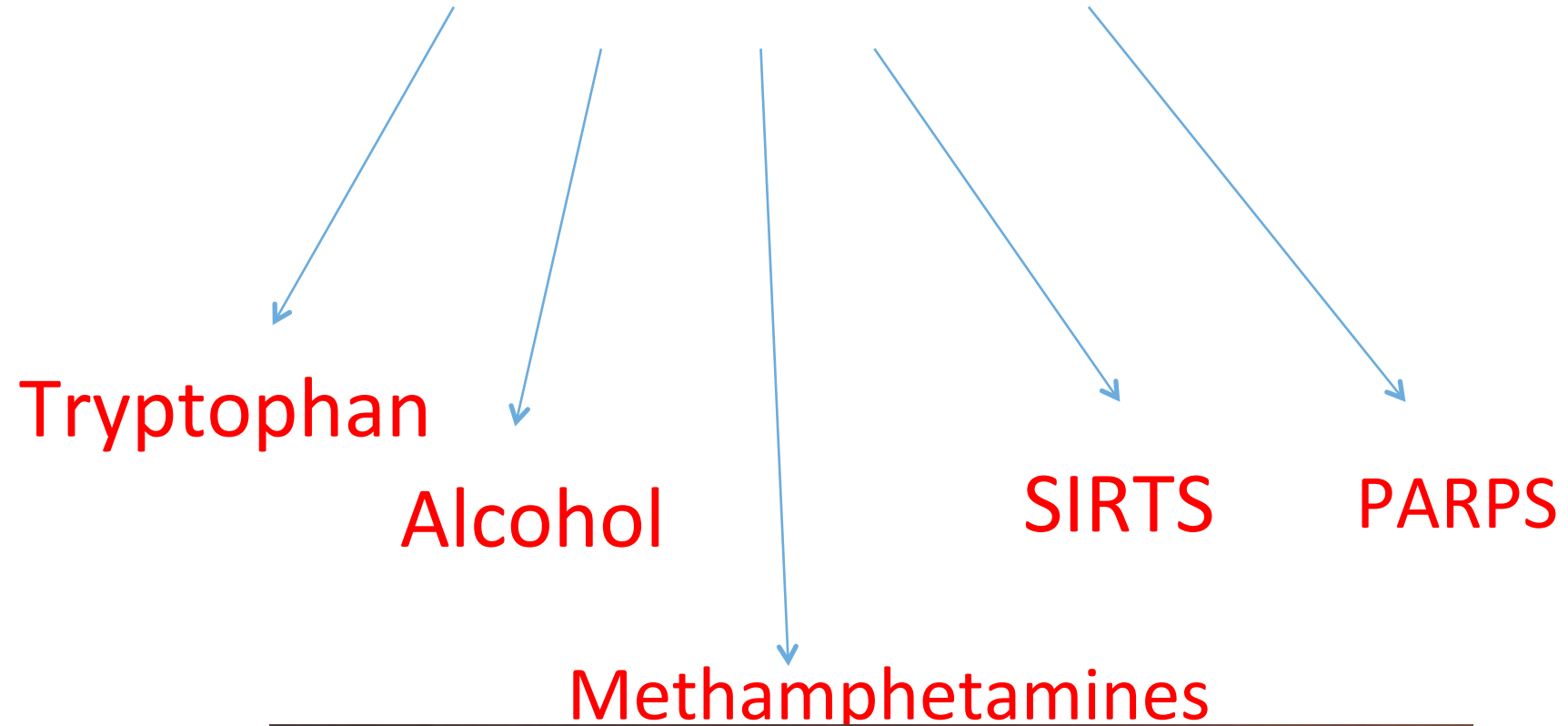


1998



2002

NAD STEAL



NAD and the Brain

- NAD⁺ is essential for metabolic function in all cells of the body including the brain and CNS
- Increased oxidative damage (e.g. during aging and alcohol use) decrease NAD⁺ levels & Sirtuin activity
- In the CNS, restoring/maintaining NAD⁺ levels is linked to:
 - Reduced glutamate excitotoxicity
 - Maintenance of synaptic connections
 - Improved learning and memory
 - Maintenance of sleep-wake cycles
 - Enhanced social behavior through Cd38 induced oxytocin secretion
- Effective methods of maintaining NAD⁺ levels in the body promotes cellular and therefore tissue health and resilience .

Research has also shown that NAD can provide the following benefits in “healthy” people:

- Increased physical energy
- Improved mental performance
- Improved response to short term sleep deprivation
- Reduce the effects of jet lag
- Enhance libido
- Anti-aging

History of NAD and Vitamin B-3

- Pellagra
 - A deficiency disease due to a lack of Niacin (Vit B3) in the body that can be mimicked due to abuse of certain drugs



- In the early 1900's, pellagra reached epidemic proportions in the American South. Between 1906 – 1940 over 3 million cases of pellagra were reported, with the disease accounting for over 100,000 deaths

There are 3 symptoms to Pellagra

Diarrhea

Dermatitis



Dementia

Pellagra: severe niacin deficiency

dermatitis, diarrhea, dementia (3 Ds)

- Skin
 - thick, scaly, darkly pigmented rash develops symmetrically in areas exposed to sunlight.
- digestive system
 - inflammation of the mouth and tongue ("bright red tongue"), vomiting, constipation, abdominal pain, and ultimately, diarrhea.
- Neurologic symptoms
 - headache, apathy, fatigue, depression, disorientation, and memory loss and are more consistent with delirium than with the historically described dementia





Black Tongue - Pellagra



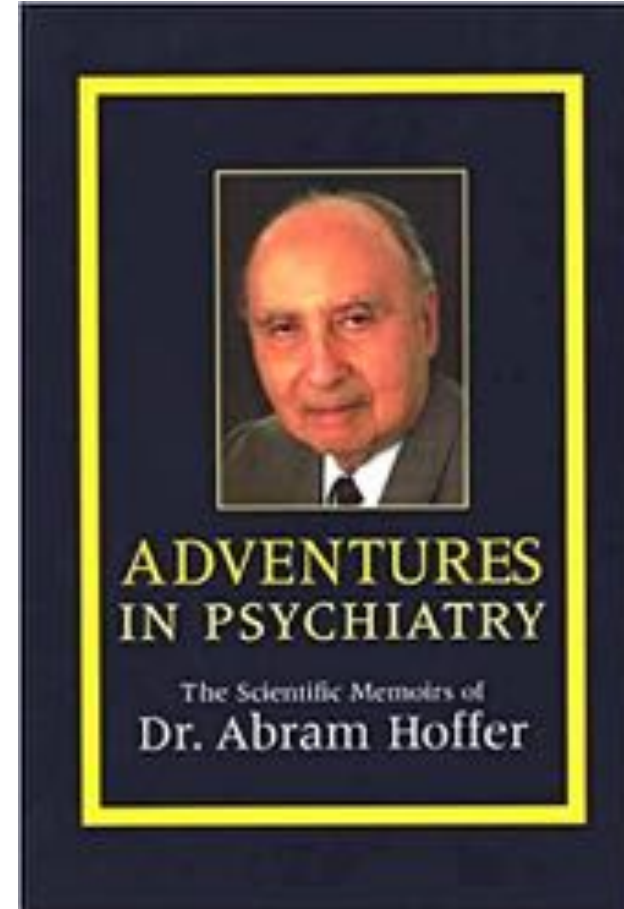
Surgeon General, Dr. Joseph Goldberger

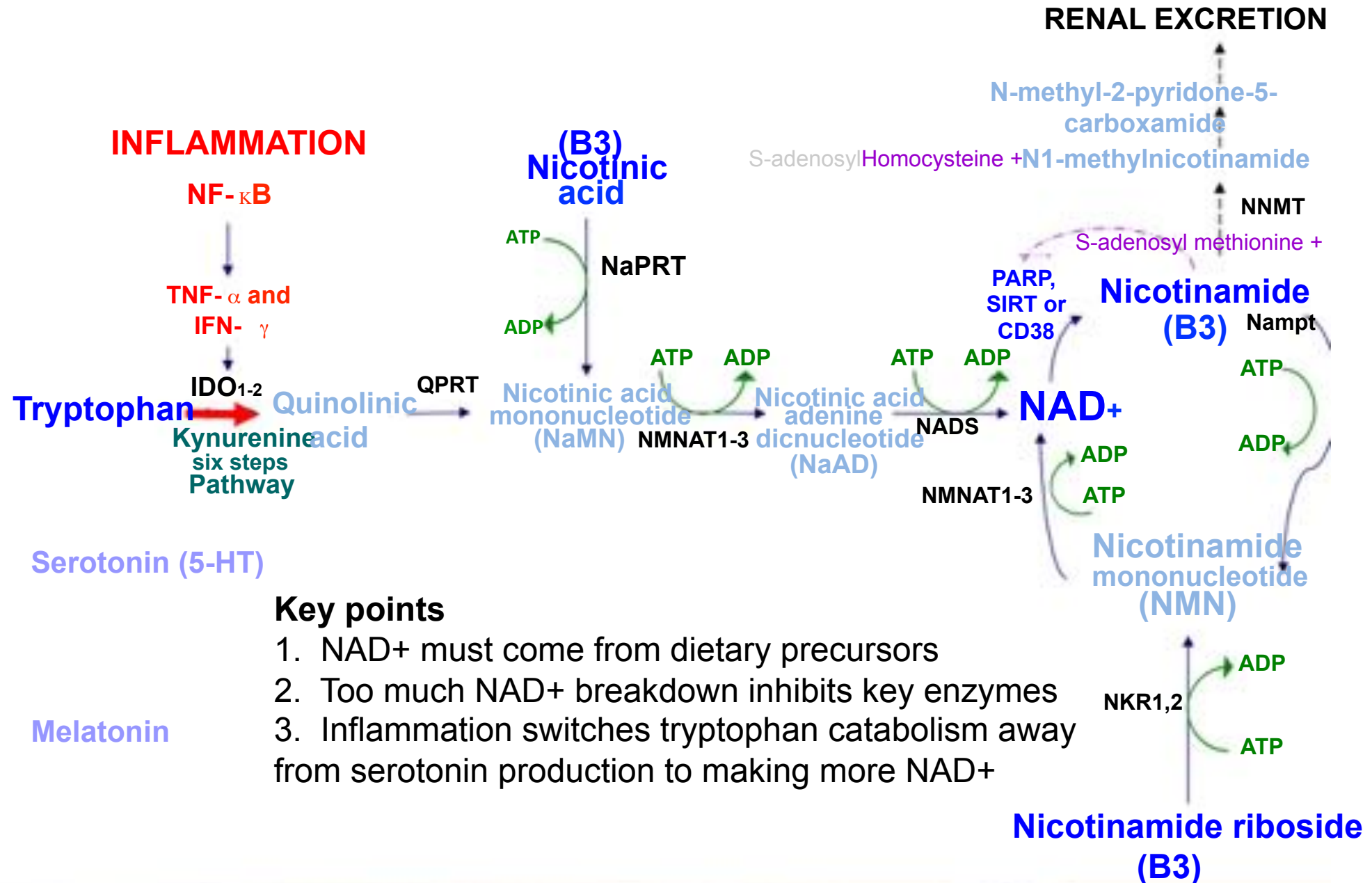
- Dr. Joseph Goldberger connected pellagra to the rural areas with corn based diets rather than an infection, contrary to the medical ideas of that time.
- The epidemic resolved itself right after dietary niacin fortification and also found that substituting corn based diets with eggs, milk, and meat prevented the disease.



Abram Hoffer, Phd, MD, (1917-2009)

- Did the first experiments with vitamin B-3.
- Worked with thousands of schizophrenics and allegedly cured many with vitamin B-3.
- Developed an IV infusion formula for NAD.
- Worked on B-3 for addiction with Bill Wilson.

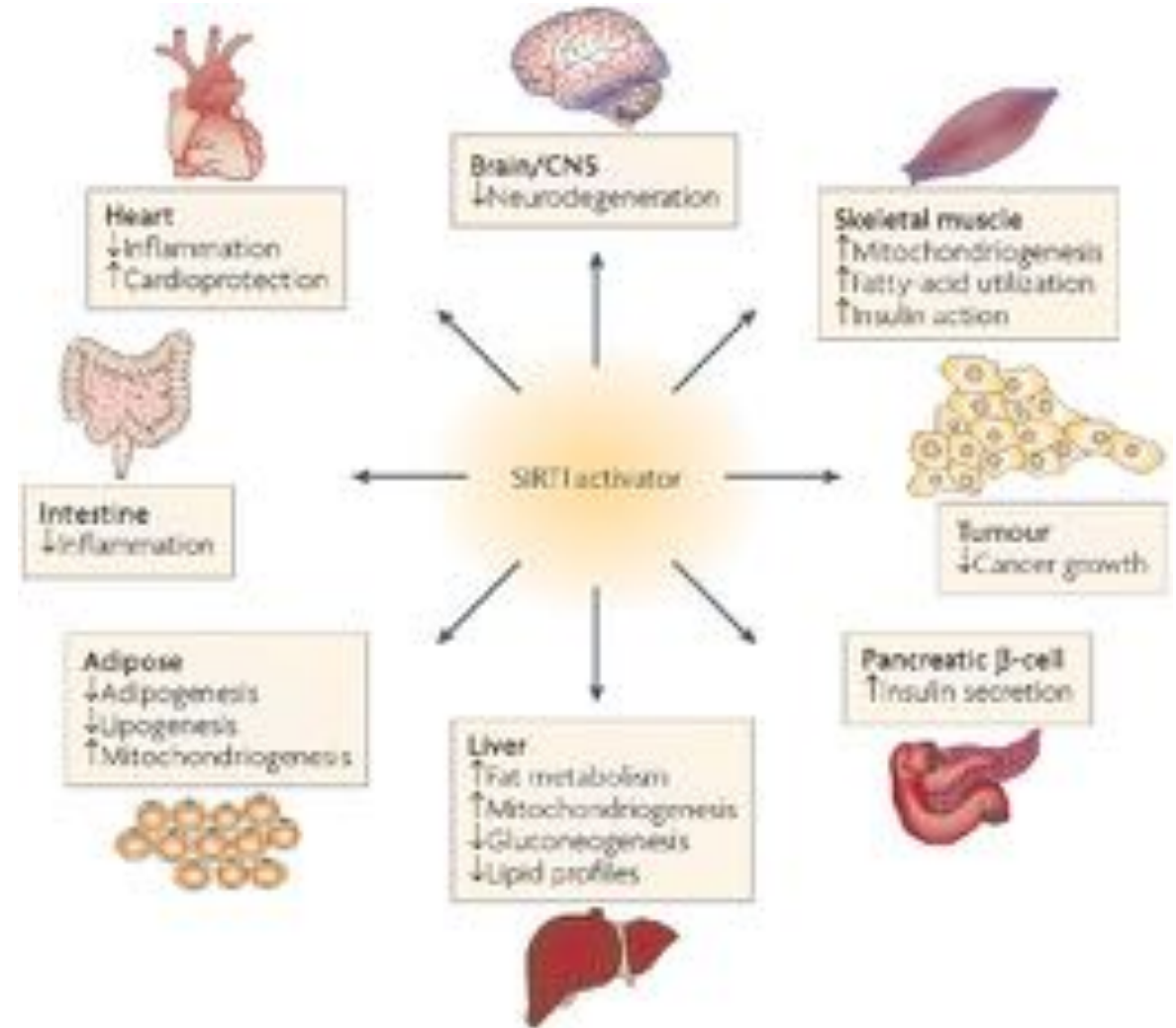


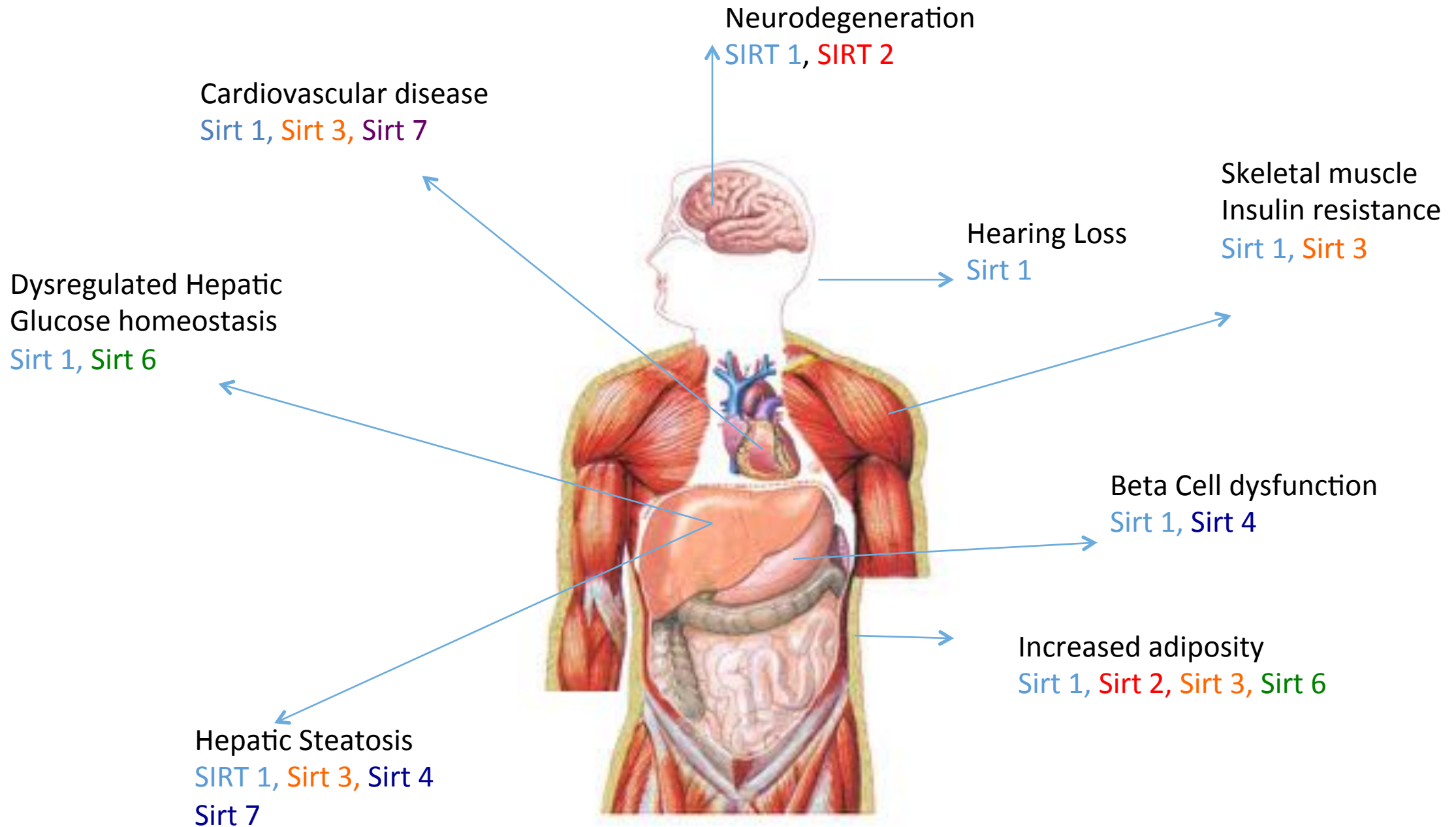


Sirtuins-novel therapeutic targets to treat age-associated diseases

Nature Reviews Drug Discovery 7, 841-853 (October 2008)

- Sirtuins modulate the function of many cellular proteins
- implications for treating diseases of ageing.
- Potent small-molecule modulators of sirtuins have shown efficacy in preclinical models of metabolic, neurodegenerative and inflammatory diseases





How can you get NAD naturally and put me out of business?

- Eat raw—there is less oxidative stress.
- Eat niacin rich meals with yeast, red fish, legumes and fortified cereals and leafy greens.
- Sleep
- Fasting
- Low carb meals
- Exercise
 - like high intensity interval training

How do you dose NAD?

- It depends. The whole person is taken into account. It depends upon reaction as well.
- Sometimes we start patients on battery powered patches, pills, sprays, and injections if time and money is an issue.
- For anti-aging it we recommend 6 days of treatment.
- Addiction is often 10 days.
- NAD is high quality and quantity.
- We use therapies alongside it:
 - Like sirtuin activators
 - And supplements to make sure that the patient does not accidentally get too much NAD.
 - Light therapy

Resources

- www.NADtreatmentcenter.com Call us we will give you a discount for December and January. (844) NAD-PLUS.
- NADsummit2018.com
- [NAD+ Metabolism in Neurodegeneration and Ageing](#) By Nady Braidy
- Testimonials: <http://www.nadtreatmentcenter.com/testimonials>
- <https://bengreenfieldfitness.com/2016/07/transcript-what-is-nad/>
- Ryan Munsey Podcast on NAD
- www.Brainresearch.center



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