Cellular Triage, Nutrition, and EMF

CELLULAR TRIAGE MEANS THAT THE BODY DELAYS CONSEQUENCES OF INSULTS BY PRIORITIZING "RESPONSE RESOURCE" USE.

Serious diseases take a long time to develop and are not predicted by clinical studies as easily as observed in epidemiological ones. This explains in part the contradictory conclusions of short studies on long-term EMF bio-effects. The triage hypothesis offered by Dr. Ames gives us one rationale for this, suggesting that the body's coping strategies may not allow us to "see" adverse effects by using only clinical parameters. Scientists are discovering that our cells have a priority system for delaying the failure of survival functions by sacrificing less critical functions when a number of micronutrients are not provided in sufficient amounts.

We live in a world where we are exposed to many risk factors, with EMF being only one. Dr. Ames does not talk about EMF specifically; rather he discusses cellular mechanisms for responding to stresses over a long period of time. Many of us have micronutrient deficiencies at the time of EMF exposures due to poor diets or absorption, prior depletion during illness and other stresses, etc. DNA damage, mitochondrial decay, oxidation of membranes and organelles, and more, may well be occurring, but our bodies manage to keep us alive and symptom-free for a while.

ATP production has a higher priority than DNA repair.

Cardiac function is more important than hepatic function.

Red blood cells are more important than white blood cells.

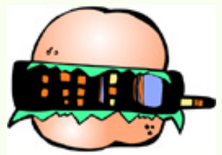
Reproductive function is more important than extended lifespan.

Not every highly-exposed person develops cancer or other serious pathology, or does so at the same exposure level or period of time. We can try to reduce our exposures, but it may also be wise to provide our cells with adequate micronutrients to maximize repair capacity.

How long does it take for the effects of EMF and other tissue insults to pass from insidious sub-cellular changes to serious pathology? It depends not only on the nature of the cumulative insults, but on the availability of micronutrients which subserve the body's coping and repair mechanisms.

Mitochondria and EMF

"Mitochondrial decay appears to be a major contributor to aging and its associated degenerative diseases, including cancer and neural decay." Bruce Ames



TRIAGE: "the assigning of priority order to projects on the basis of where funds and other resources can be best used, are most needed, or are most likely to achieve success" Miriam-Webster Online Dictionary

A coming epidemic?

- Mobile phone risks
- Aging, autism, oxidation
- Lessons from the Interphone
- Microwave News: Interphone

Bruce Ames

- The triage theory
- Life Extension interview
- Pub Med Article, triage theory
- Triage theory gaining support
- Brief overview of nutrient status and aging
- Binding affinity relates to survival importance
- Triage as nutrient deficiency managed for survival
- Bruce Ames Proves his Triage Theory with Vit. K
- Video presentation on mitochondria, oxidation, aging

"The triage hypothesis posits that the risk of degenerative diseases associated with aging, including cancer, cognitive decline, and immune dysfunction, can be decreased by ensuring adequate intake of micronutrients... A corollary... is that micronutrient deficiencies would accelerate late-onset diseases causally linked to ... sub-clinical insults... insidious changes may indeed be occurring, providing a unifying rationale for diverse observations in the literature that suggest links between micronutrient availability, aging, and the diseases of aging..."

Bruce Ames

Studies on nutrient reserves and delay of morbidity

- Fruits, vegetables, cancer
- Micronutrients delay aging
- Specific nutrients/complexes
- Micronutrients, DNA damage
- Specific affects of folate deficiency
- Folate deficiency and DNA damage
- Micronutrient deficiencies and DNA damage
- Microelement levels, non-threshold N.S. effects
- High dose vitamins stimulate lower affinity enzymes
- Methyl rationing, bucket theory, total toxic body burden

EMF adaptation

- ELF, RF, the stress response
- Video presentation, EMF, cancer
- RF, mammalian adaptive response
- EMF research scientist in Ames lab

Ames Triage Theory

Dr. Ames Video

Related maps

- EMF and DNA
- Free radical activity
- Alzheimer's Disease
- EMF Toxic Interactions
- Mitochondria and EMF
- Lifetime Exposures to EMF
- EMF, Methylation, Glutathione
- EMF and the Multiple-Hit Model

The triage hypothesis suggests "body wisdom" in maintaining nutritional adequacy as one protective measure against cumulative EMF-induced cellular insults:

Antioxidants
Membrane stabilizing nutrients
DNA/RNA protective nutrients
DNA/RNA repair nutrients
Detoxification support
Histamine modulators
Melatonin modulators
Energy nutrients for ATP synthesis

Home: Oscillatorium
Newest version: this map
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