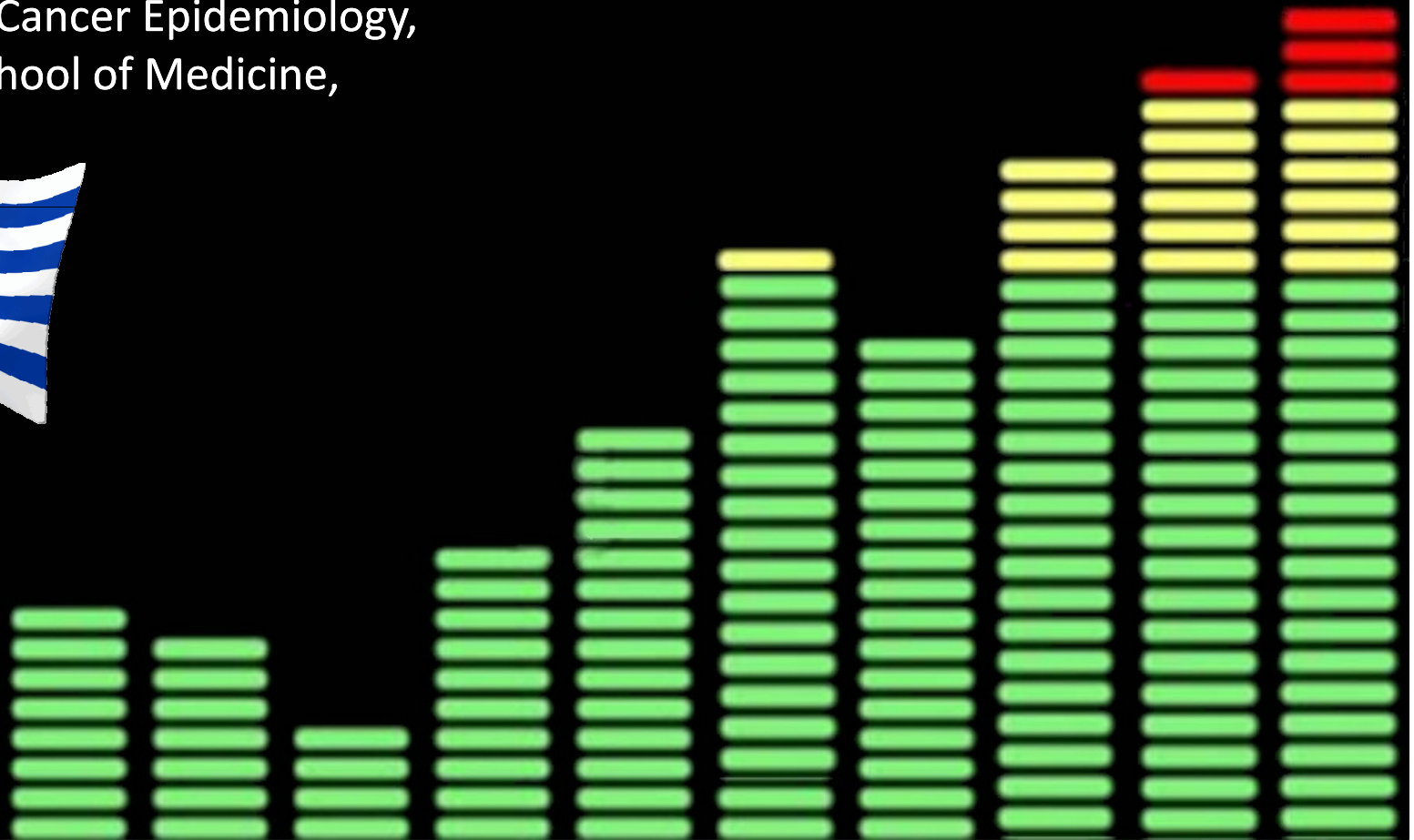
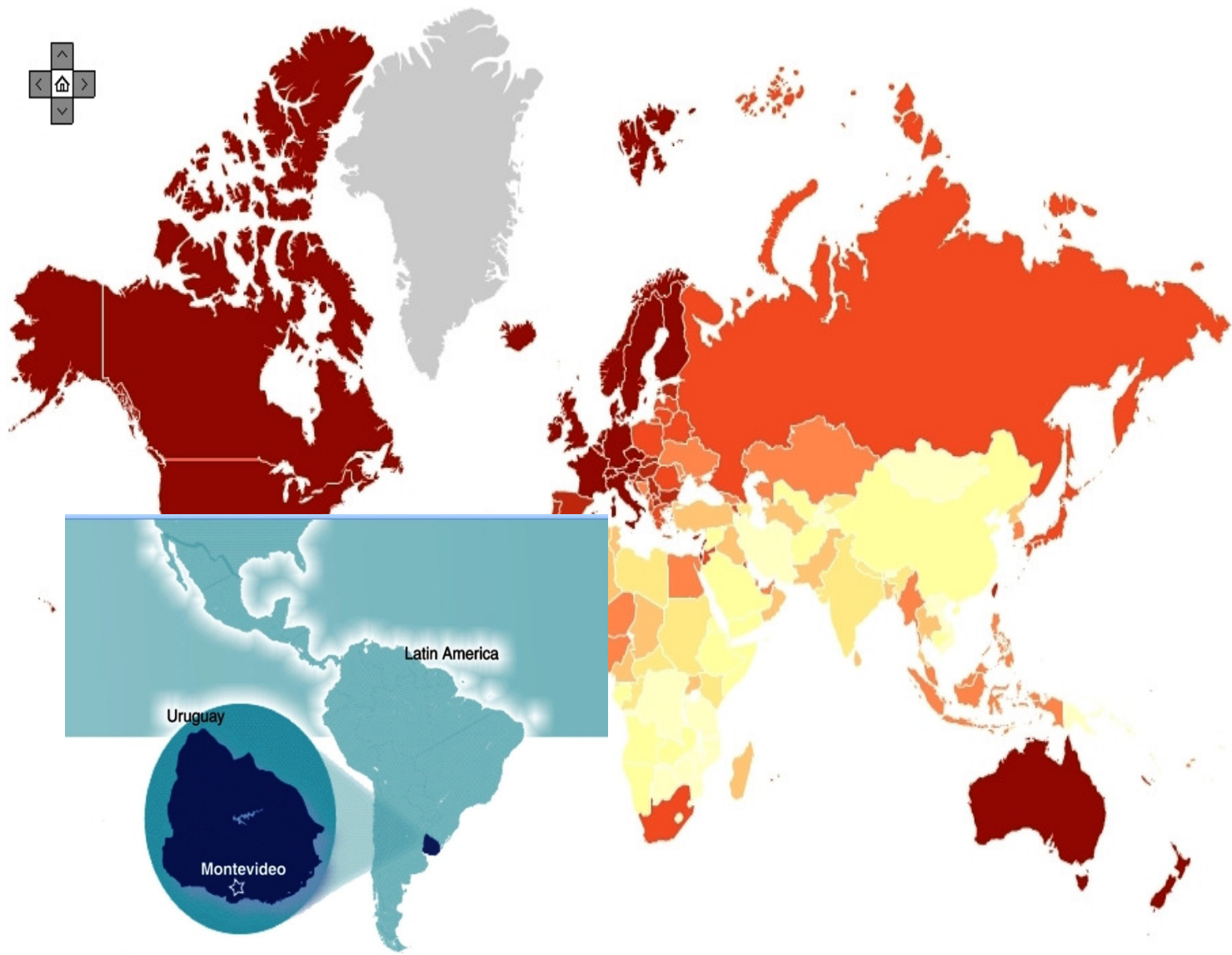


NUTRIEQUALIZATION: Attempting to improve survival in cancer patients through nutritional modifications

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URUGUAY



▲ Breast Cancer Incidence Worldwide in 2008



0 18.9 27.2 40.1 67.5 110
Age-standardised incidence rates per 100,000

Roll over the map for country rates.
Click onto the map and zoom with mouse wheel.

GLOBOCAN 2008, International Agency for Research on Cancer

The current evidence suggests longer *disease-free* survivals and longer *global* survivals among those patients who change their nutrition (diet and body composition), also their physical activity.

Carmichael A & Bates T, *Breast* 2004;13:85-92.

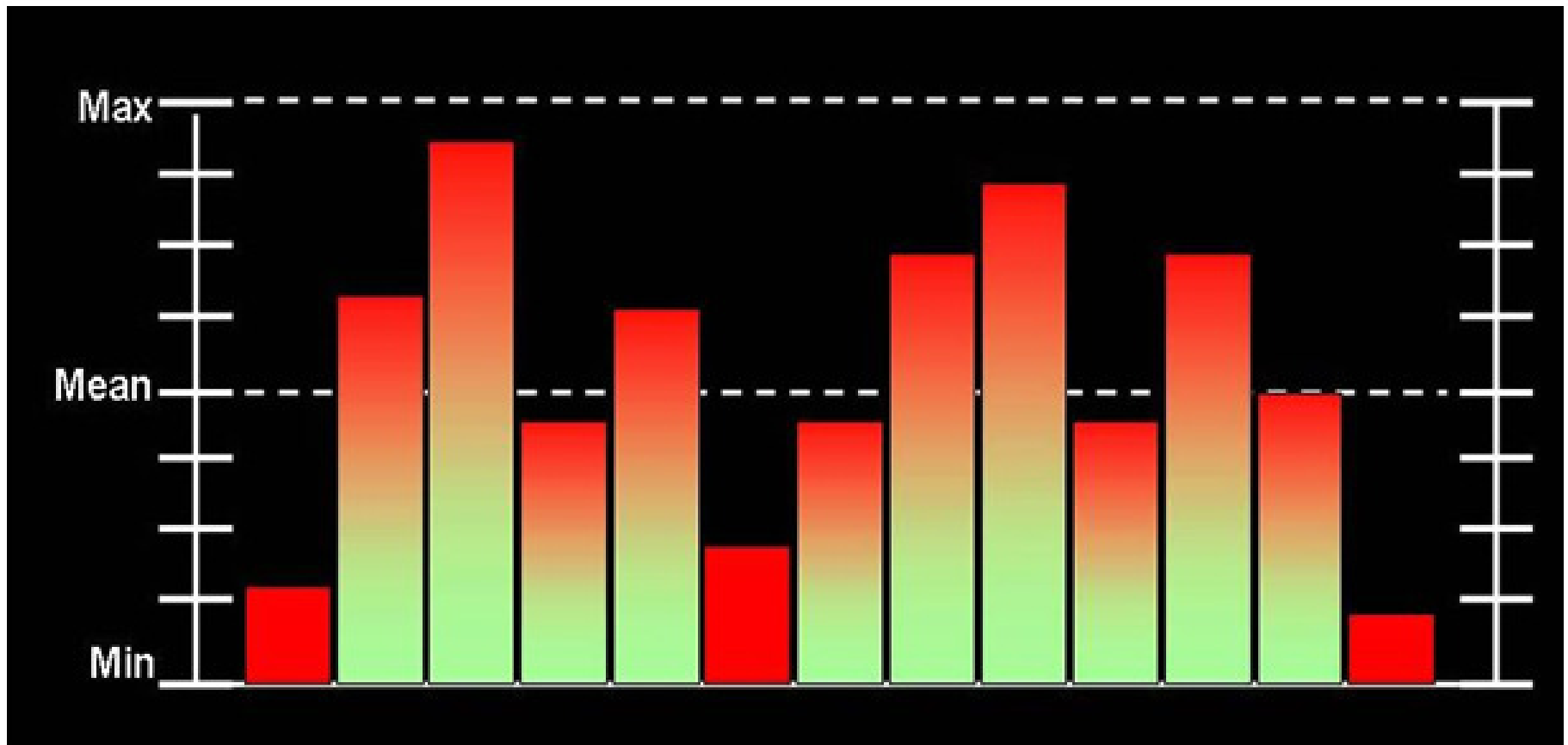
Loi S et al, *Cancer Epidemiol Biomarkers Prev* 2005; 14:1686-91

Whiteman MK et al. *Cancer Epidemiol Biomarkers Prev* 2005; 14:2009-2014

Abrahamson PE et al. *Cancer Epidemiol Biomarkers Prev* 2006; 15:1871-7

EXPECTED CONSEQUENCES OF A WESTERN DIETARY STYLE

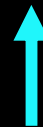
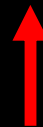
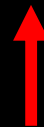
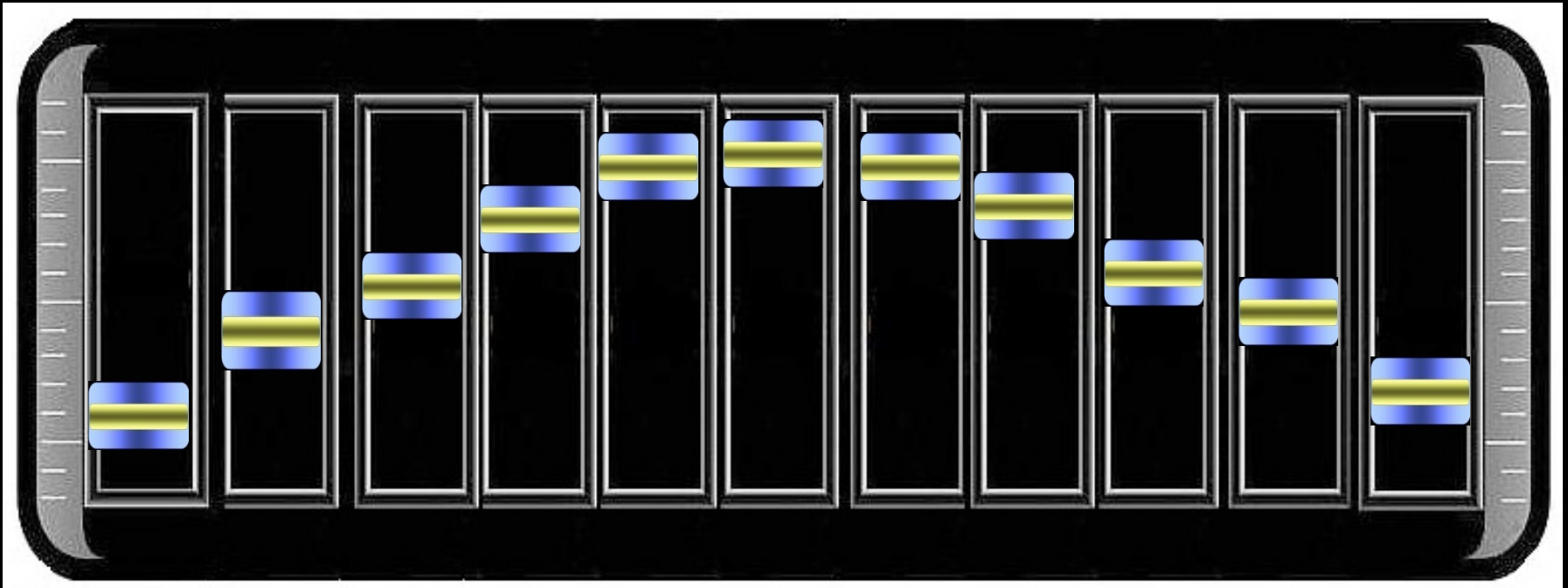
NFκB



↑ Fish/ fish oil
 ↑ Red Meat
 ↑ Whole dairy
 ↑ Legumes
 ↑ Refined sugars
 ↑ Chicken with skin
 ↑ Citrus fruits
 ↑ Eggs
 ↑ Raw vegetables
 ↑ Carotenes
 ↑ Common oils & margarines
 ↑ Cruciferous
 ↑ Tubers

ADEQUATE

NUTRITIONAL PATTERN



PROTECTIVE FOODS

RISK FOODS

PROTECTIVE FOODS

NUTRIEQUALIZATION

TARGET: EACH SELECTED RISK/PROTECTIVE ITEM SHOULD REACH THE LOW-RISK ZONE.

THE LOW-RISK ZONE COULD BE GIVEN BY THE LOWEST INTAKE CATEGORY (**Risk factors**) OR THE HIGHEST ONE (**Protective factors**).

SELECTED ITEMS as EXAMPLES

1. BREAST CANCER

Red meat intake (beef, bbq, fried meat ≤ 1 time/wk)

Fruit intake (orange, orange juice ≥ 8 units/wk)

Oils & fats (only virgin olive oil & no margarine)

Triglycerides/HDL ratio < 2

2/16 α -OH estrogens ratio > 2

Serum vitamin D level > 40 ng/ml

Fasting insulinemia < 10 μ U/ml

SELECTED ITEMS as EXAMPLES

2. COLORECTAL CANCER

Red meat intake (beef, bbq, fried meat $\leq 500\text{g/wk}$)

Fruit intake ($\geq 1\text{kg /wk}$)

Vegetable intake ($\geq 1.700\text{ kg /wk}$)

Fish intake (Fatty fish preferred >2 times/wk)

Oils & fats (only virgin olive oil & no margarine)

Omega-3 supplements (3-4 g/day [in 10-15 g of oil])

**CANCER
PATIENT**

**Conventional Therapies
+ Specific NUTRITIONAL
STRATEGY**

**BETTER
RESULTS
EXPECTED**

**Conventional Therapies
ONLY**

**OUR PROPOSAL TAKES INTO ACCOUNT POPULATION-SPECIFIC FEATURES
→ THE OWN NUTRITIONAL PROFILE OF THE STUDIED POPULATION,
COMBINED WITH SELECTED INTERNATIONAL REFERENCE VALUES**

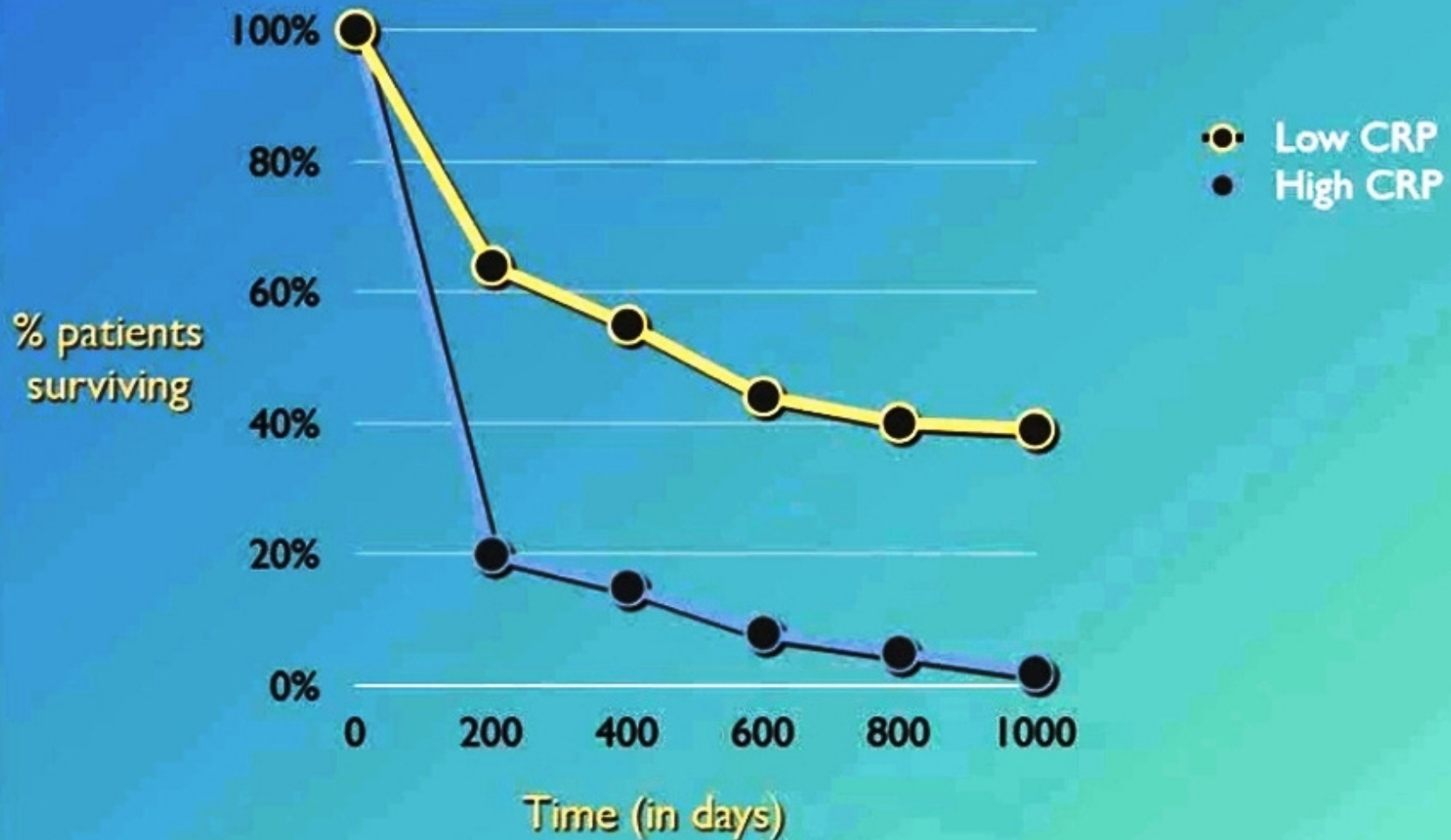
The American Cancer Society (*Doyle et al, Ca A Cancer J Clin 2006*) has described some strategies for cancer patients, in order to reduce weight excess.

The first one of those strategies suggest that patients should ask their oncologist before beginning with any diet or exercise program.

OXIDATION INFLAMMATION



Inflammation & Cancer Survival

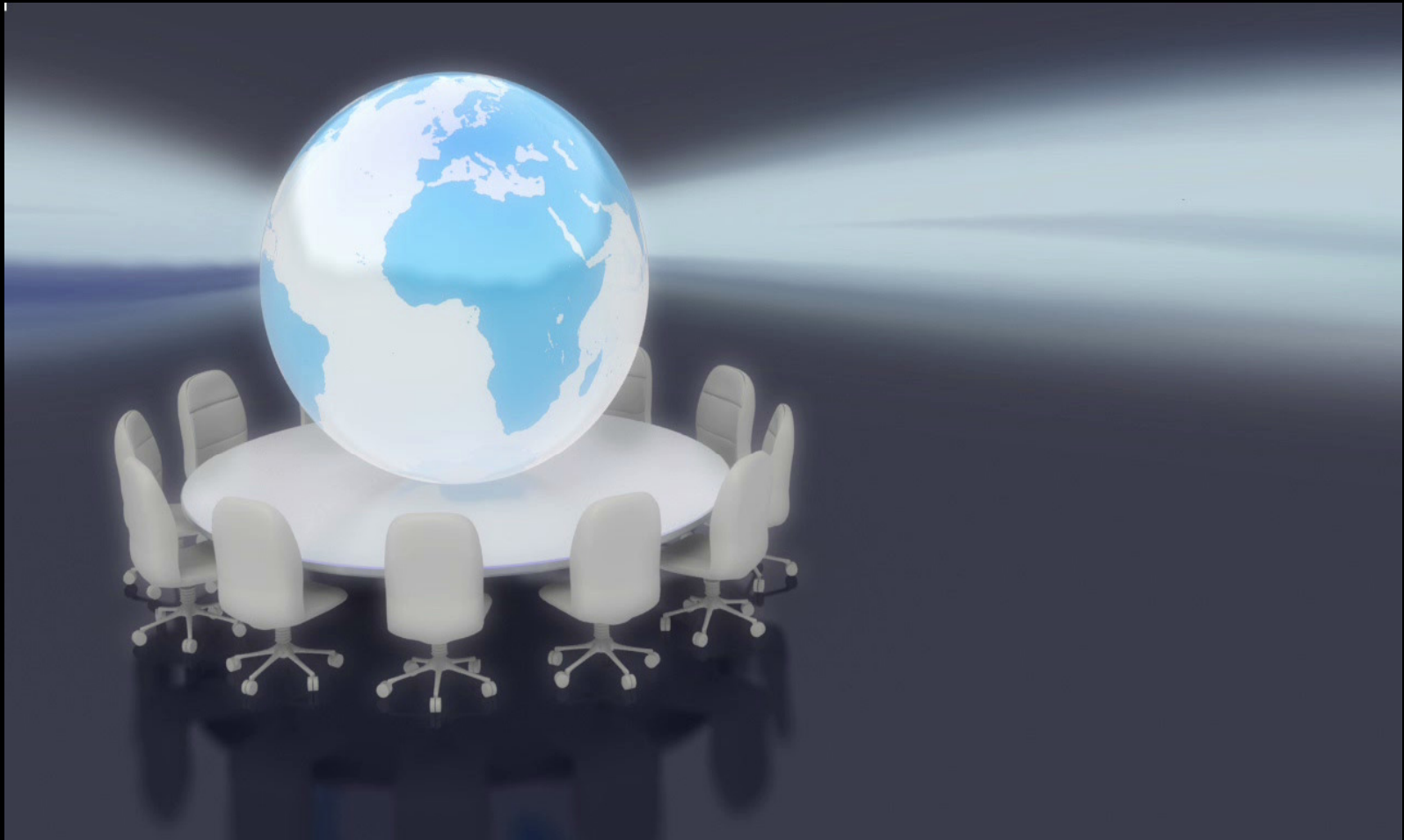


SOURCE: McMillan DC, *et al.* Measurement of the systemic inflammatory response predicts cancer-specific and non-cancer survival in patients with cancer. *Nutr Cancer*, 2001;41(1-2):64-9.

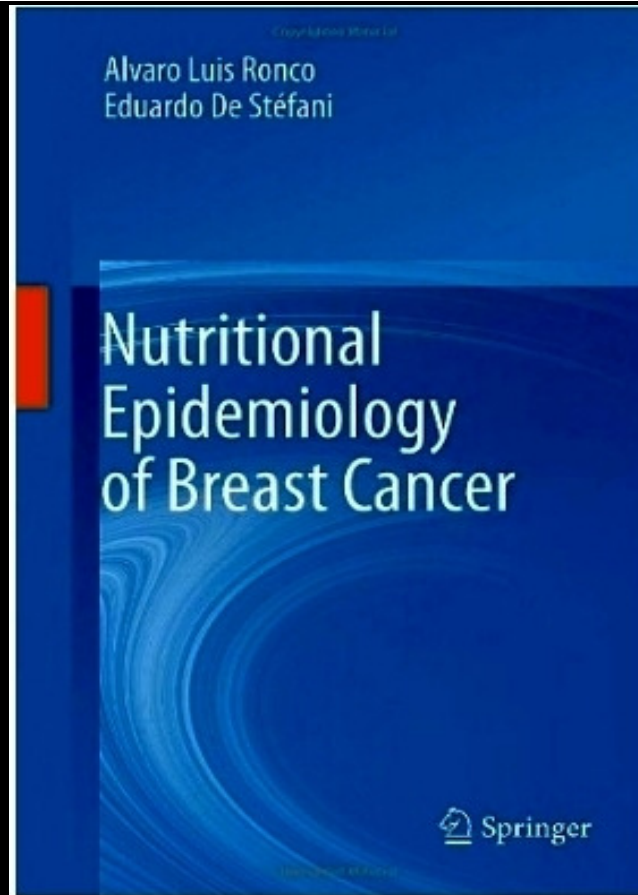
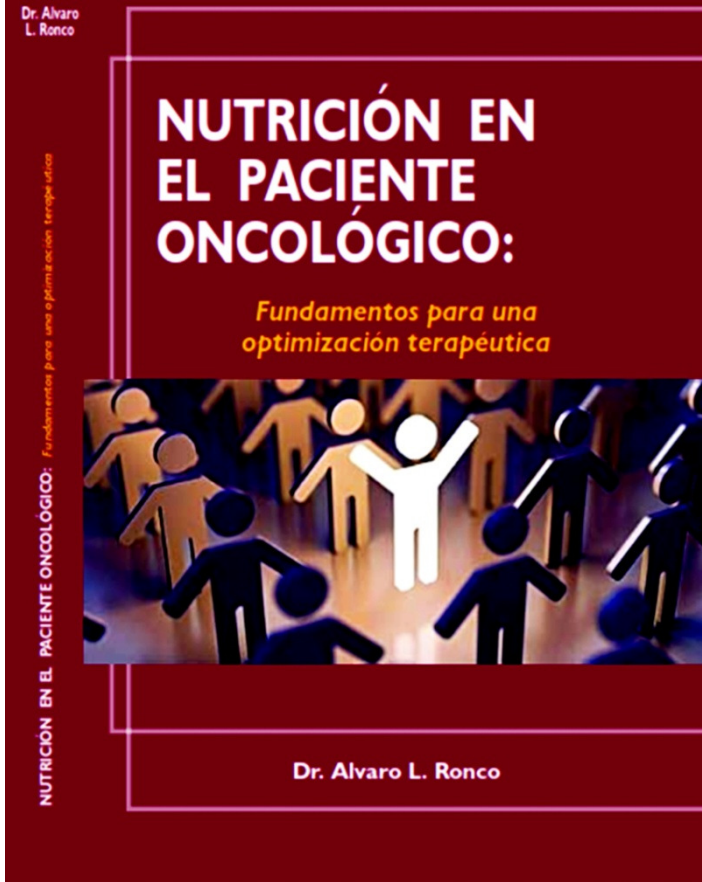


ANTIOXIDATION ANTIINFLAMMATION



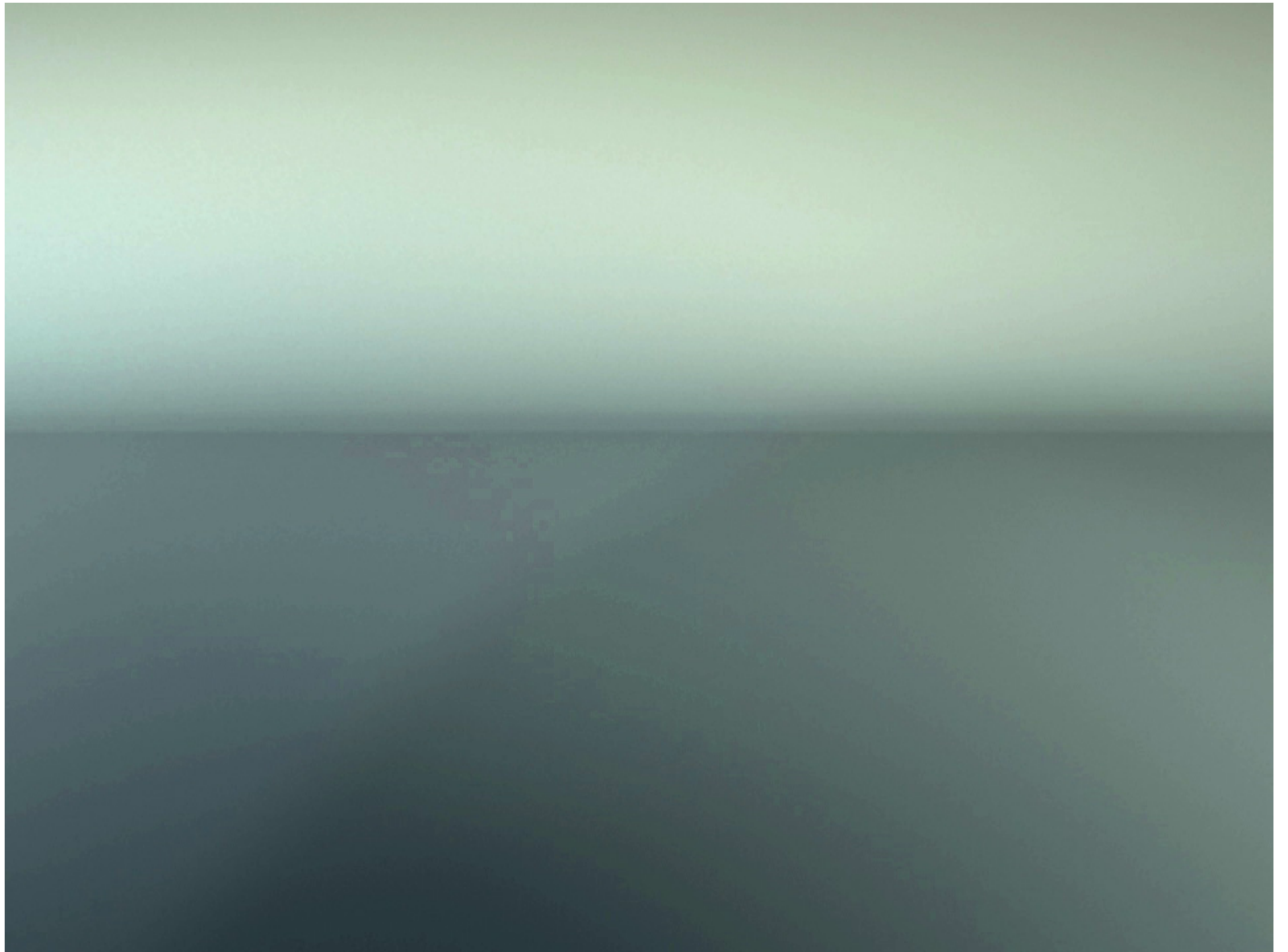


Before trying to make an attempt
of nutritional changes...



The kitchen is a place from where a patient can optimize the efficacy of oncological therapies, therefore improving the prognosis of her/his cancer.







**THANK YOU VERY MUCH
FOR YOUR ATTENTION**



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