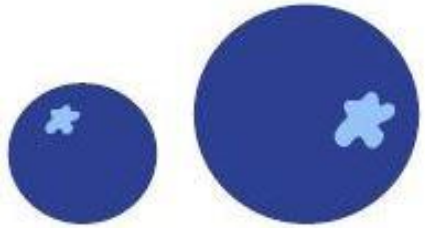
HEALTHY FOR A LIFETIME

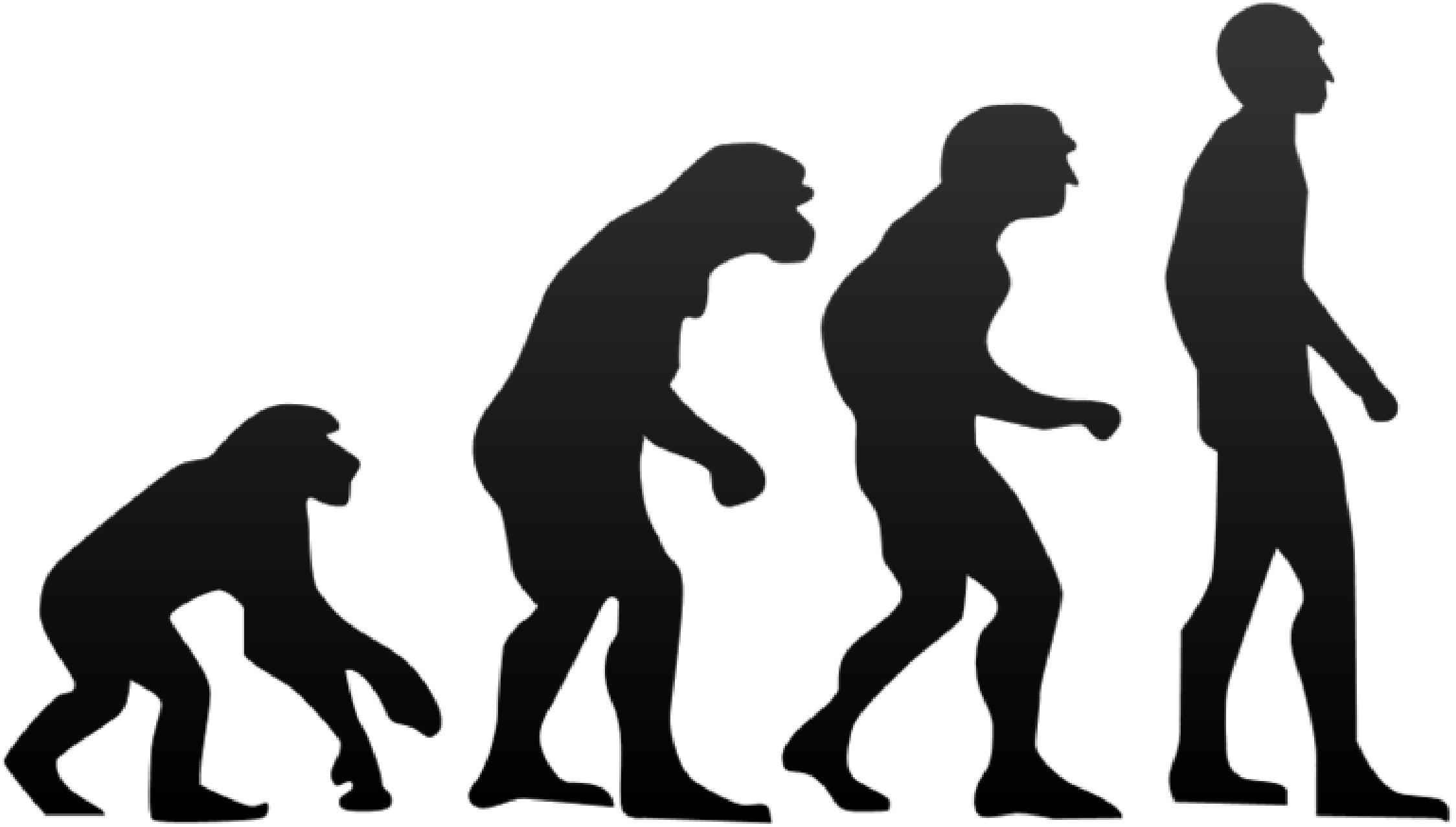
A Physician's Personal Experience Overcoming Multiple Sclerosis and the Power of Lifestyle to Reverse and Prevent Autoimmune Disease

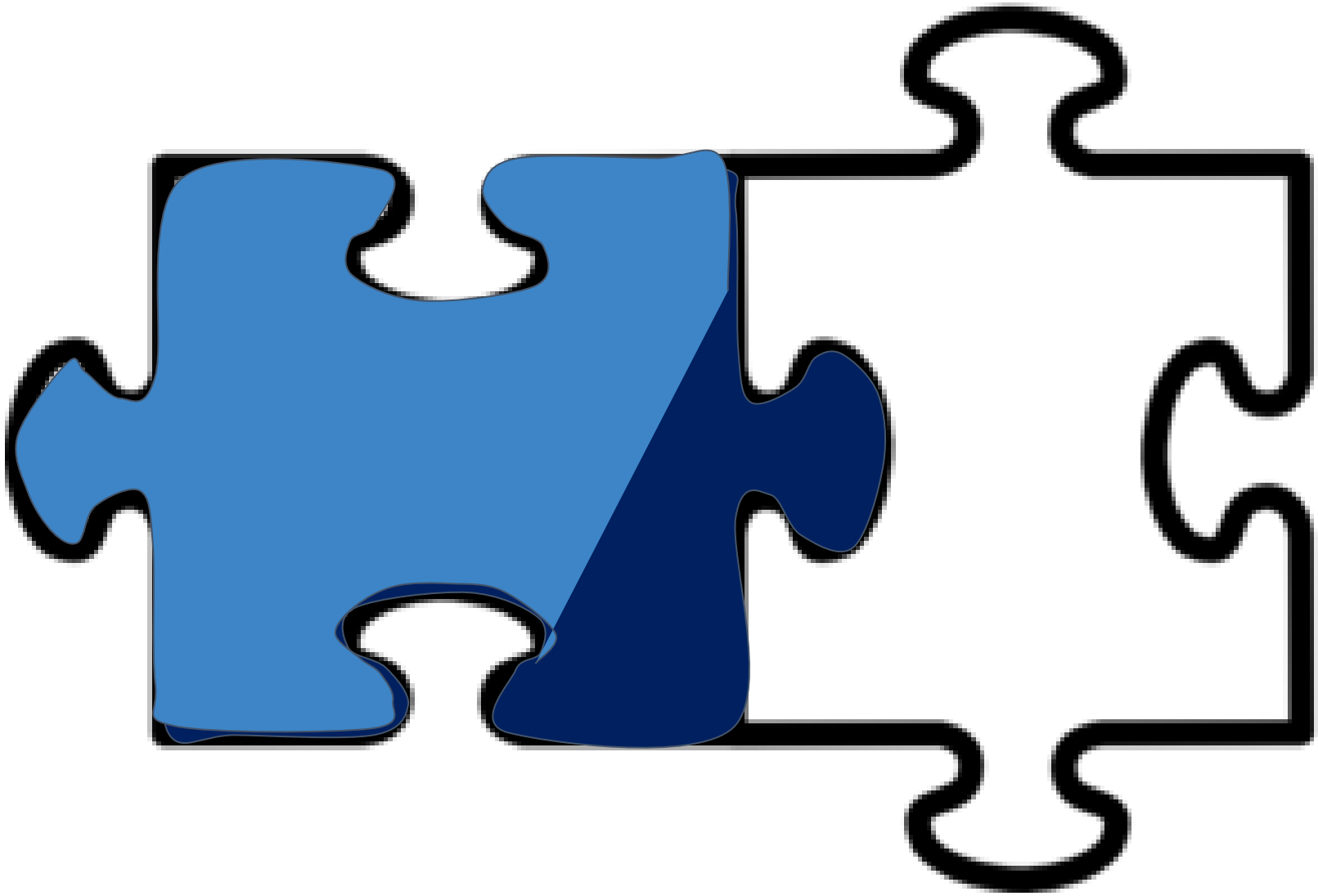
Saray Stancic, M.D.
Omaha, Nebraska
October 19th 2019



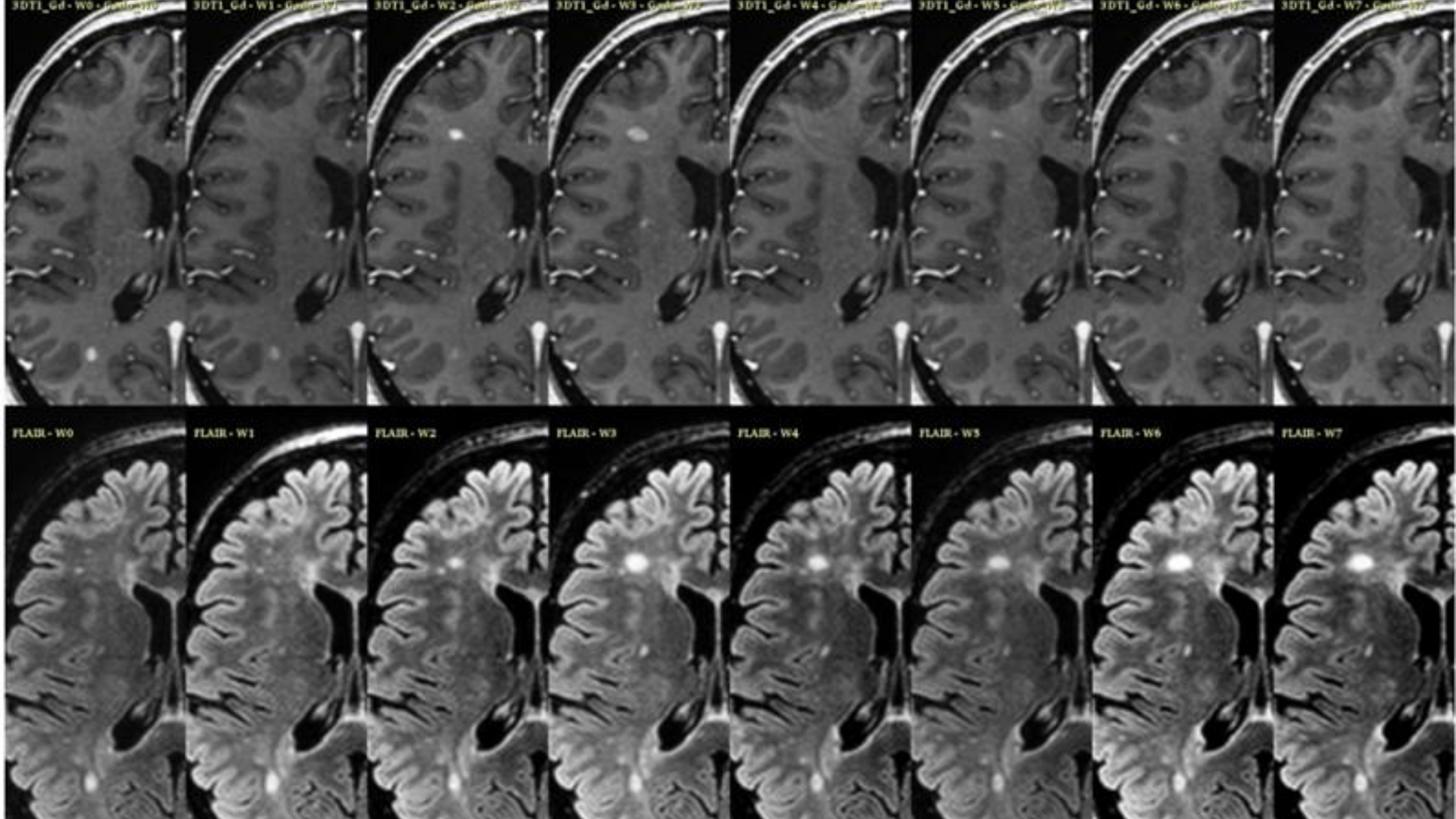

HELLO
my name is


HEALTHFUL EATING
of whole, plant-based food
Increase
PHYSICAL ACTIVITY
Develop strategies to
MANAGE STRESS
LIFESTYLE MEDICINE FOCUSES ON 6 AREAS TO IMPROVE HEALTH
Cessation of
TOBACCO
Form & maintain
RELATIONSHIPS
Improve your
SLEEP





October 11,1995


FLAIR - W0
FLAIR - W1
FLAIR - W2
FLAIR - W3
FLAIR - W4
FLAIR - W5
FLAIR - W6
FLAIR - W7


BETASERON
INTERFERON BETA-1b
Prednisone
Tablets USP
10 mg
Watson
PROVIGIL
(MODAFINIL)
100 mg
Rx only
100 Tablets
Cephalon
CAPSAICIN 0.025%
New Size!
40% more
CAPSAICIN 0.025%
Topical Analgesic
NEURONTIN
300 mg
Amitriptyli
Tablets, US
10 mg
SANDO
Zoloft
25
25 mg*
AMB 5
5401
AMB 10
5421
ITROPAN
oxybutynin chloride)
mg
ORTHO-McNEIL
00 Tablets
autoject
2
for glass syringe
Not actual size


DMT

a·ha mo·ment

noun

informal

noun: aha moment; plural noun: aha moments; noun: a-ha moment; plural noun: a-ha moments

1. **a moment of sudden insight or discovery.**
2. **"it was one of those aha moments, when you know you have to risk it all"**


Vol 23, No 12 2977–3250
Vol 23, No 9 2079–2268
Vol 23, No 8 1761–2079
Vol 23, No 7 877–100, 1499–1760
Vol 23, No 6 845–76, 1247–1498
Vol 23, No 5 947–1246
Vol 23, No 4 711–946
Vol 23, No 3 525–710
Vol 23, No 1 81–93, 1–210
Vol 22, No 12 3101–146, 2795–2996
Vol 22, No 11 2583–2794
Vol 22, No 10 2323–2582

460

Multiple Sclerosis: Twenty Years on Low Fat Diet

each case af
signs or symp
The distril
rological disa
ble 2), and
(Table 3) are
The neuro
present study
0 Normal
logical
1 Normal

‘those who adhered to the diet showed significantly less disability and lower mortality rates - Of those that survived, 95% remained physically active’

intended to be final, both in treatment of the data and in conclusions.

Materials and Methods

Patient Material.—Evaluation and discussion of the materials and methods were presented in detail in a previous paper.[4] The more pertinent points, however, will be included here. From December 1948 to April 1954, 264 patients with

In our pre
combined to
was the dead
The patie
four-week a
For the week
recorded eve
the patients
year. Food i
three months

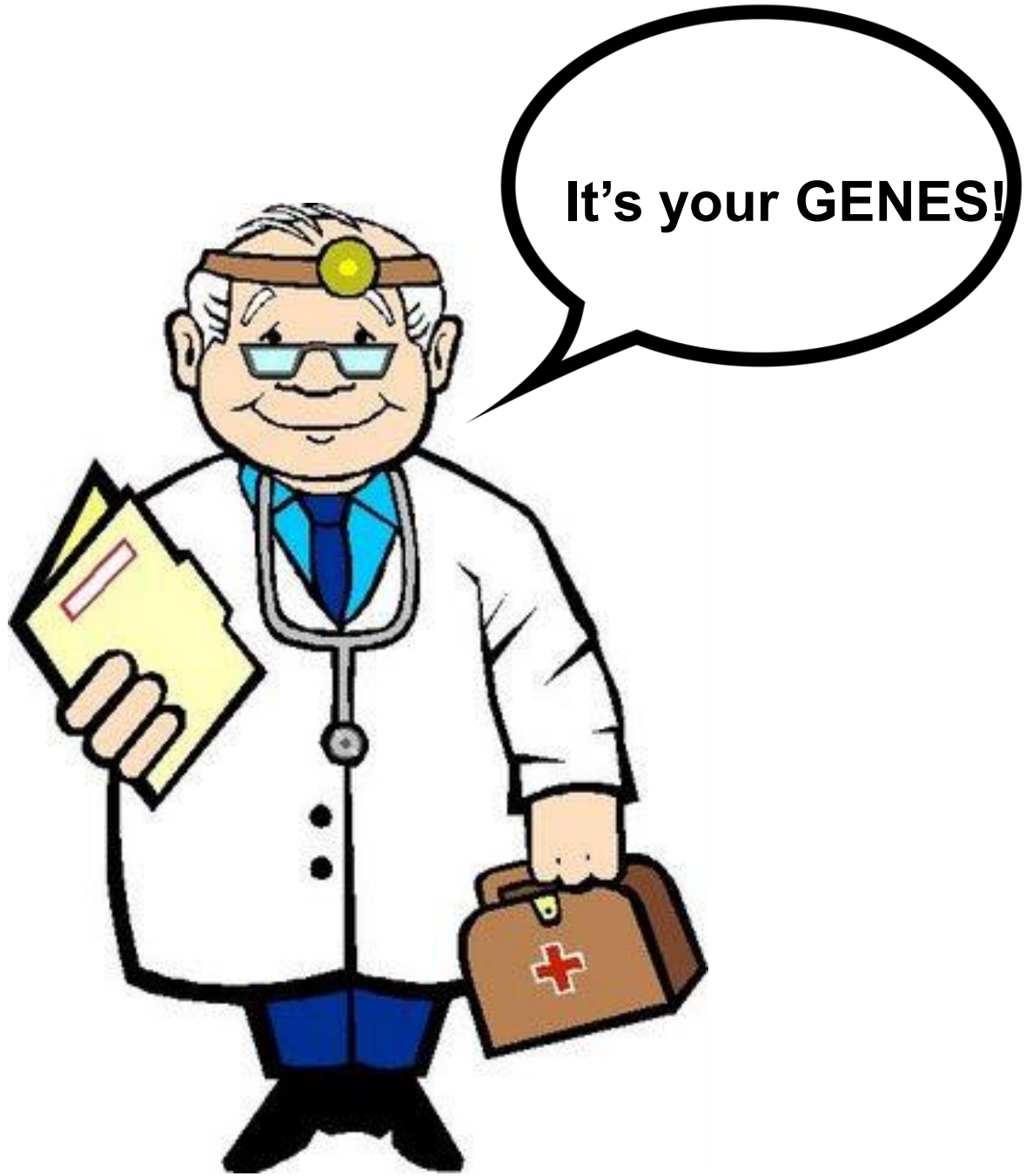
THE LANCET
Volume 336, Issue 8706, 7 July 1990, Pages 37-39

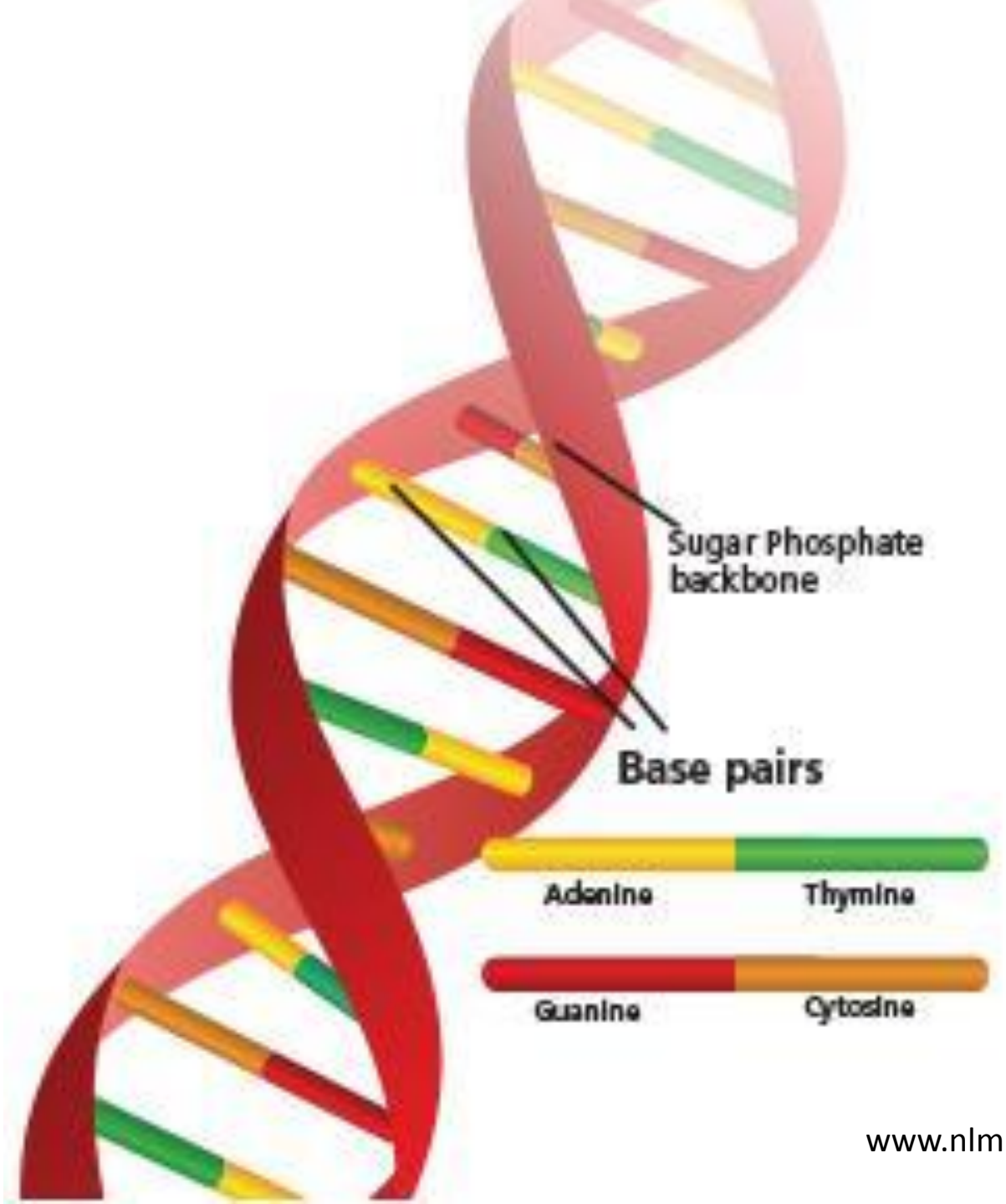
VIEWPOINT

Effect of low saturated fat diet in early and late

Abstract

144 multiple sclerosis patients took a low-fat diet for 34 years. For each
three categories of neurological disability (minimum, moderate, severe)
patients who adhered to the prescribed diet (≤20 g fat/day) showed
significantly less deterioration and much lower death rates than did those
who consumed more fat than prescribed (>20 g fat/day). The greatest

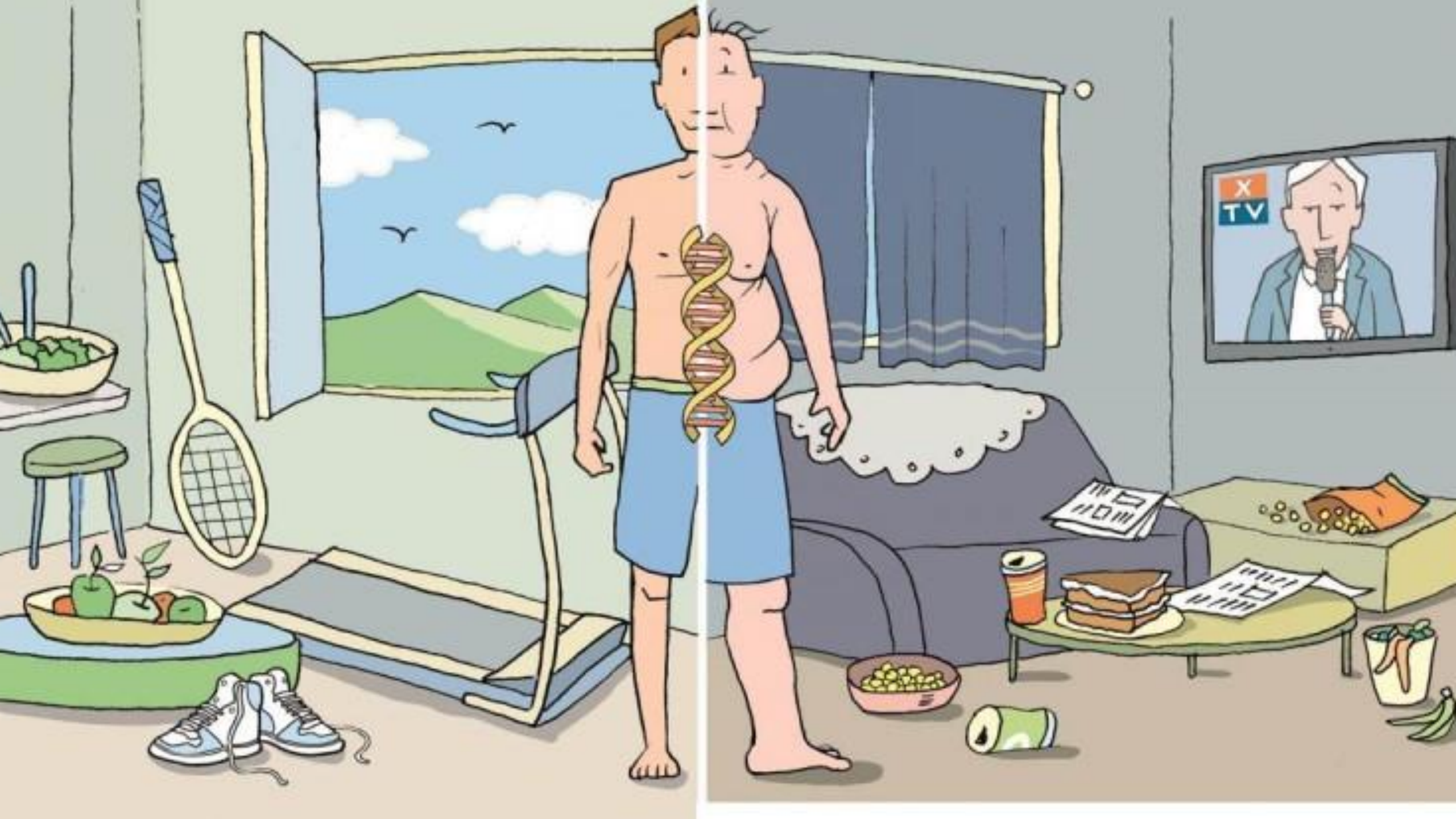

It’s your GENES!



www.nlm.nih.gov

Table 2 Autoimmune diseases, showing female:male ratios of patients and concordance rates in monozygotic (MZ) twins

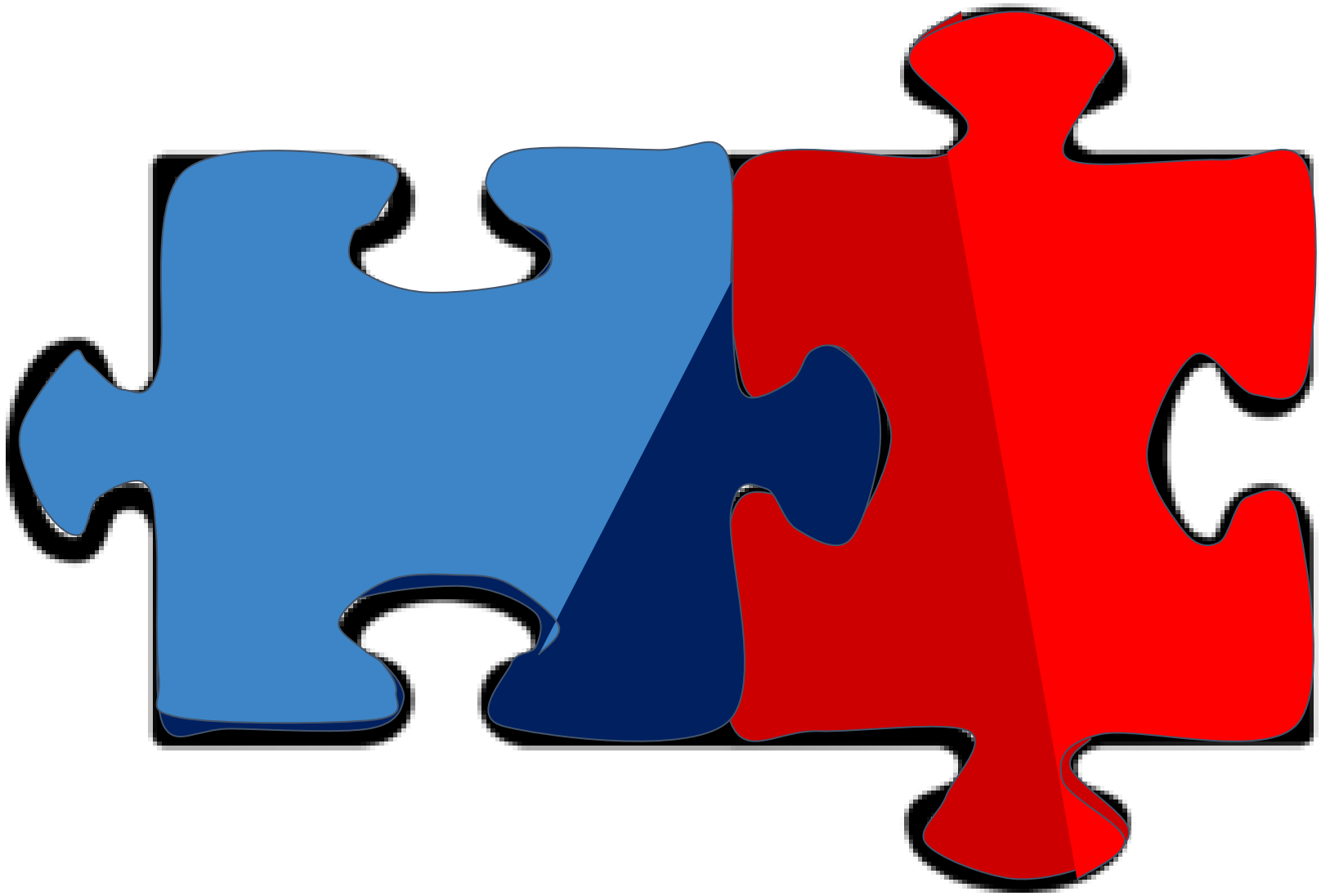
Disease	Target	Female:male ratio	Concordance in MZ twin
Multiple sclerosis	Central nervous system myelin	1.9–4.3:1[140,235,236]	14%–33%[81,237–240]
Type 1 diabetes mellitus	Beta-islet cells of the pancreas	0.5–0.8:1[241,242]	13%–60%[82,243–245] affected by genotype;[244] latitude[245]
Systemic lupus erythematosus	Cell nucleus	8.7–13.1:1[246]	11%–33%[85,247–249]
Rheumatoid arthritis	Joints	2.7:1[250]	12%–15%[251–253]
Graves' disease	Thyroid	3.5:1[254]	17%–35%[255,256]
Primary biliary cirrhosis	Liver	9:1[257]	63%[258]
Psoriasis	Skin	0.8–1.1:1[242,259]	35%–70%[260,261]
Myasthenia gravis	Acetylcholine receptors	2:1[262]	35%[263]
Ankylosing spondylitis	Joints	1:3[264]	40%–80%[265]


X
TV


July 2, 2005


Changes
NEXT EXIT


May 2nd 2010
LONG BRANCH HALF
FINISH
INVESTORS SAVINGS BANK
Continental



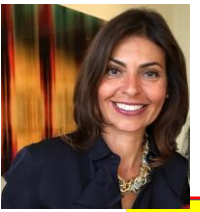

DEPARTMENT OF
VETERANS AFFAIRS
Saray Stancic, MD
Chief Infectious Diseases
VA Hudson Valley HCS
PO Box 100
Montrose, NY 10548
Telephone: (914) 737-4400 ext. 2688
Fax: (914) 788-42
E-mail: Saray.Stancic@

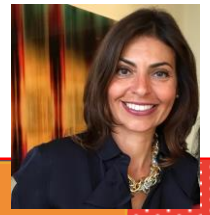
10 Leading Causes of Death United States – 2016

1. Heart disease
2. Cancer
3. Chronic lower respiratory diseases
4. Accidents
5. Stroke
6. Alzheimer's disease
7. Diabetes
8. Influenza and pneumonia
9. Nephritis, nephrotic syndrome, and nephrosis
10. Intentional self-harm (suicide)

Centers for Disease Control and Prevention
National Center for Injury Prevention and Control

Natural history of T2DM





Onset of Diabetes

Complications

Disability

obesity

Insulin resist.

PRE

Ongoing Hype cemia

Death

Atherosclerosis
Retinopathy
Neuropathy
Nephropathy

Heart Attack
Stroke
Blindness
Amputation
Renal Failure


Vol 23, No 12 2977–3250
Vol 23, No 9 2079–2268
Vol 23, No 8 1761–2079
Vol 23, No 7 877–100, 1499–1760
Vol 23, No 6 845–76, 1247–1498
Vol 23, No 5 947–1246
Vol 23, No 4 711–946
Vol 23, No 3 525–710
Vol 23, No 1 81–93, 1–210
Vol 22, No 12 3101–146, 2795–2996
Vol 22, No 11 2583–2794
Vol 22, No 10 2323–2582

The New England Journal of Medicine

VOLUME 346 FEBRUARY 7, 2002 NUMBER 6

REDUCTION IN THE INCIDENCE OF TYPE 2 DIABETES WITH LIFESTYLE INTERVENTION OR METFORMIN

DIABETES PREVENTION PROGRAM RESEARCH GROUP*

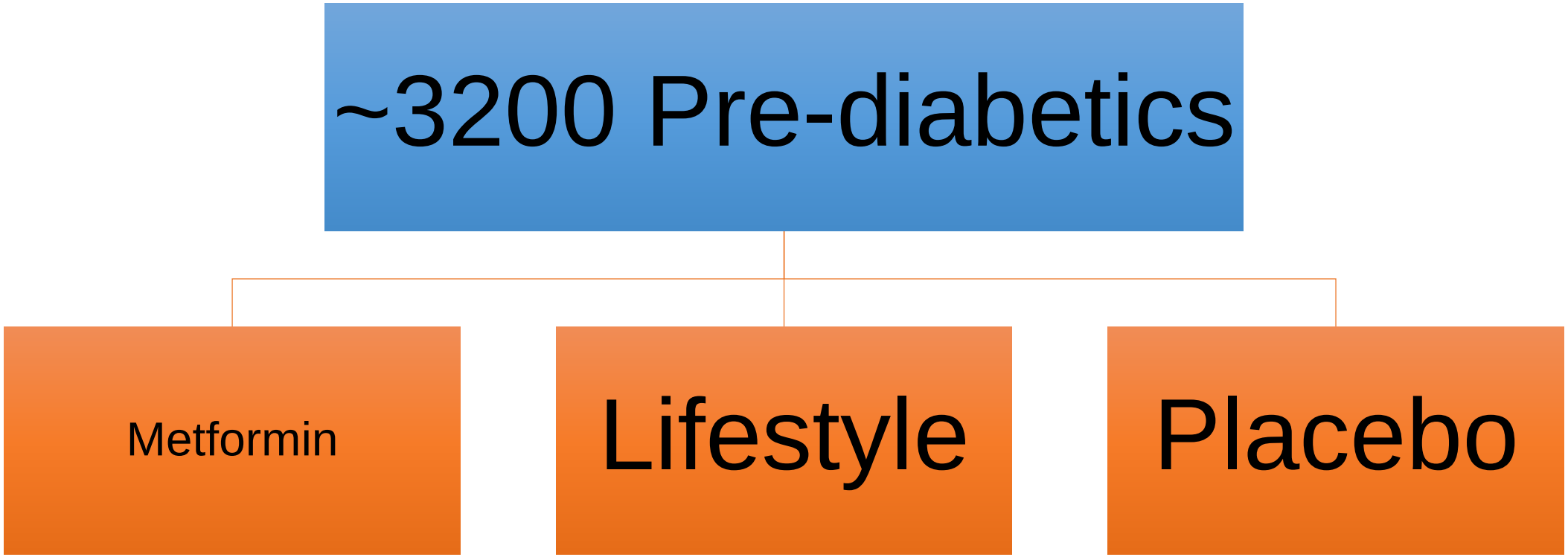
BSTRACT

Background Type 2 diabetes affects approximate-
8 percent of adults in the United States. Some risk
ctors — elevated plasma glucose concentrations in
e fasting state and after an oral glucose load, over-
eight, and a sedentary lifestyle — are potentially
versible. We hypothesized that modifying these
ctors with a lifestyle-intervention program or the
lministration of metformin would prevent or delay
e development of diabetes.

Methods We randomly assigned 3234 nondiabetic
ersons with elevated fasting and post-load plasma
ucose concentrations to placebo, metformin (850
g twice daily), or a lifestyle-modification program
ith the goals of at least a 7 percent weight loss and
least 150 minutes of physical activity per week.

TYPE 2 diabetes mellitus, formerly called non-insulin-dependent diabetes mellitus, is a serious, costly disease affecting approximately 8 percent of adults in the United States.[1] Treatment prevents some of its devastating complications[2,3] but does not usually restore normoglycemia or eliminate all the adverse consequences. The diagnosis is often delayed until complications are present.[4] Since current methods of treating diabetes remain inadequate, prevention is preferable. The hypothesis that type 2 diabetes is preventable[5,6] is supported by observational studies and two clinical trials of diet, exercise, or both in persons at high risk for the disease[7,8] but not by studies of drugs used to treat diabetes.[5]

Diabetes Prevention Program



31%

58%

1. Eat a healthy diet
2. No smoking
3. Exercise 3.5 hours/week
4. Maintain a healthy weight

Overall 80% Reduction in Chronic Diseases

93% of diabetes, 81% of heart attacks, 50% of strokes, and 36% of cancers would be prevented

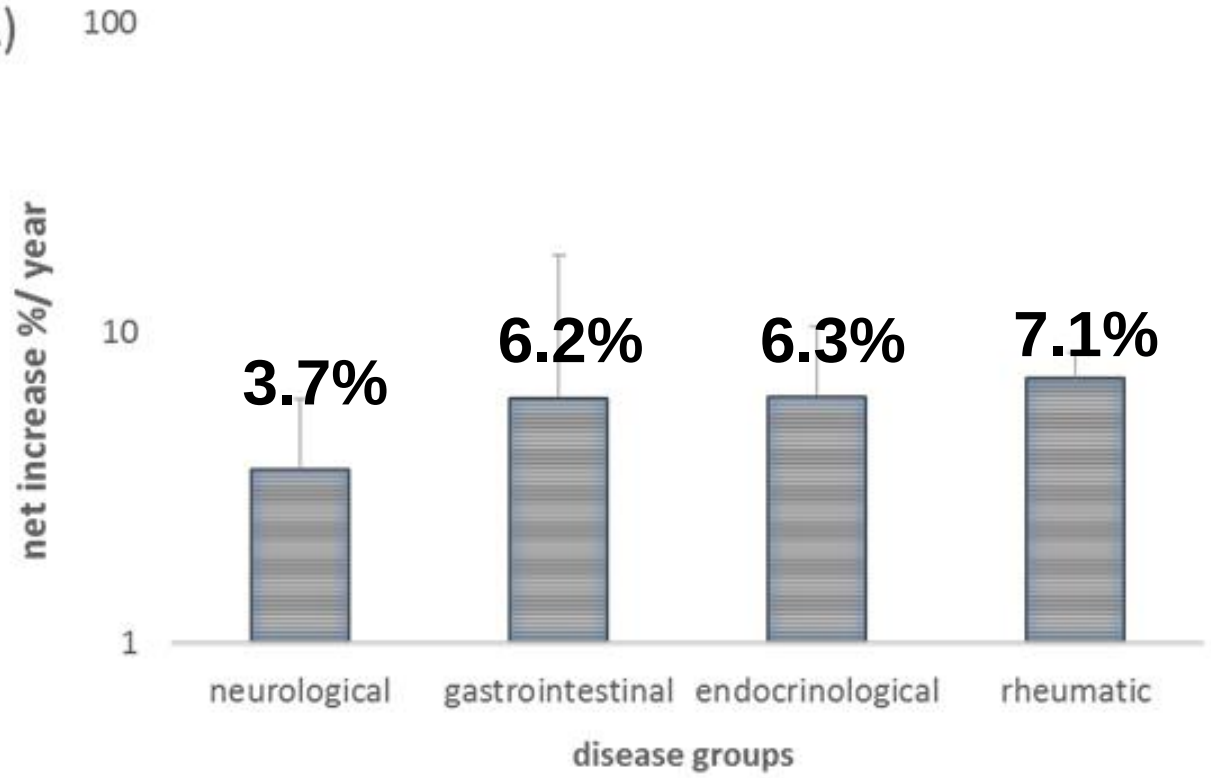
Arch Intern Med. 2009;169(15):1355-1362

4 out of 5
heart attacks prevented

G4-related sclerosing disease • Immunoregulatory lipoprot
sitis • Insulin-dependent diabetes (type1) • Interstitial cysti
Juvenile diabetes • Kawasaki syndrome • Lambert-Eaton
oclastic vasculitis • Lichen planus • Lichen sclerosus • Lign
r IgA disease • Lupus • Lyme disease, chronic • Meniere's d
gi
Attack of the Autoimmune Diseases
Mooren's ulcer • M
• Myositis • Narco
a • Neutropenia •
natism • Pediatric
tococcus •
degeneration • Parox
huria • Parr
sonnage-Turner syn
higus • Peripheral neuropathy • Perivenous encephalomye
POEMS syndrome • Polyarteritis nodosa • Type I, II, & II
dular syndromes • Polymyalgia rheumatica • Polymyositis
tion syndrome • Postpericardiotomy syndrome • Progester

The World Incidence and Prevalence of Autoimmune Diseases is Increasing

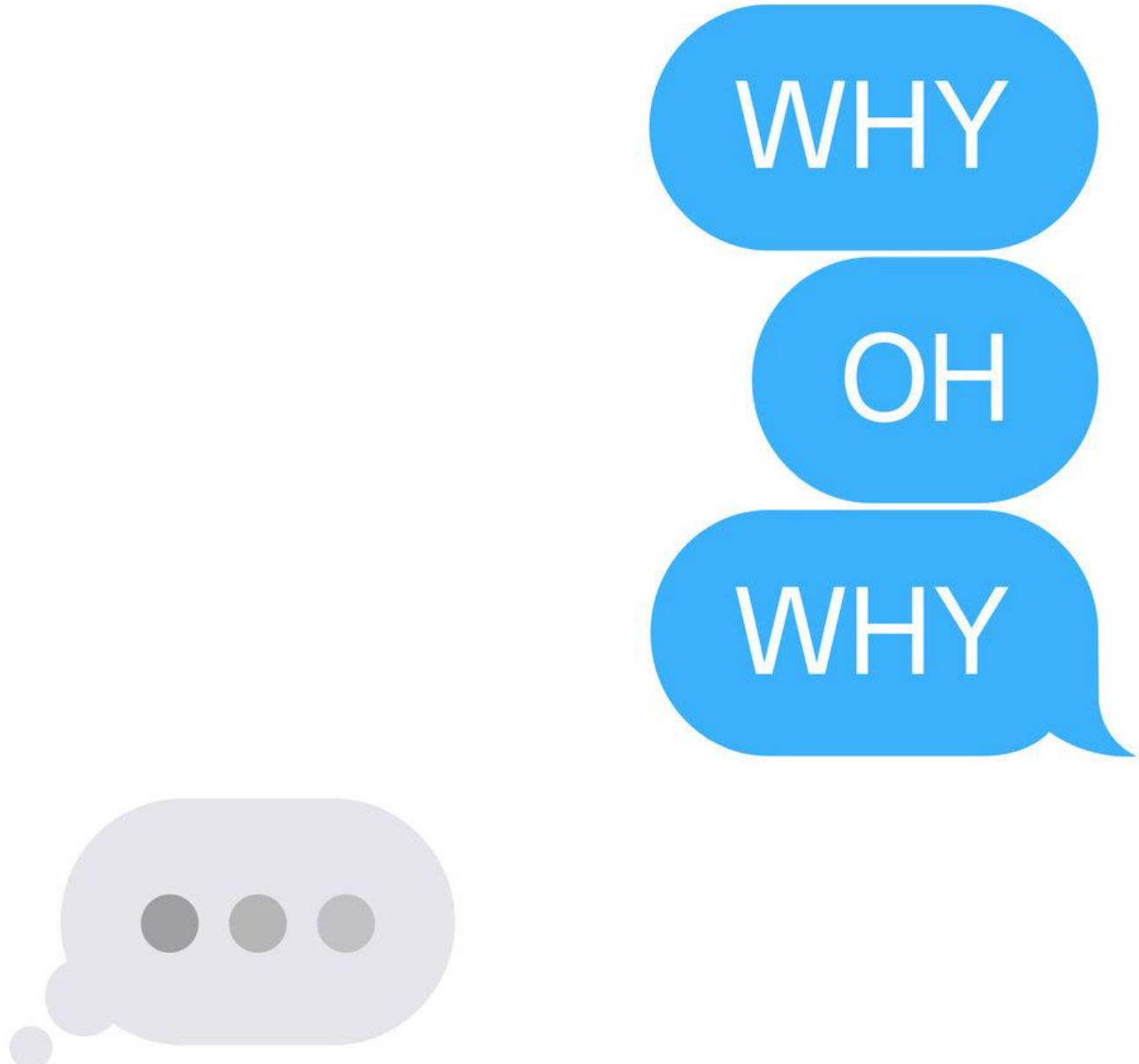
(A)



International Journal of Celiac Disease 2015, Vol. 3, No. 4, 151-155

(B)

disease kind	statistical significance (p; old vs. new)	Mean net increase % /year	countries	diseases
neurological	<0.0001	3.7 ±2.5	Finland, Denmark, Norway, Italy, Spain	MS, Myasthenia Gravis
gastrointestinal	<0.0001	6.2 ±11.5	Denmark, Canada, Sweden, USA, Finland, Israel, Netherlands, UK, Czech, Scotland, Spain, Estonia, New Zealand	Autoimmune Hepatitis, IBD, Chron`s, Celiac Disease
endocrinological	0.02	6.3 ±4.2	Brazil, Canada, Israel, Serbia, Europe	Autoimmune thyroiditis, IDDM
rheumatic	0.02	7.14 ± 1.5	Canada, UK	SARD, RA, SLE


WHY
OH
WHY

Role of "Western Diet" in Inflammatory Autoimmune Diseases

Arndt Manzel · Dominik N. Muller · David A. Hafler · Susan E. Erdman · Ralf A. Linker · Markus Kleinewietfeld

Published online: 15 December 2013

Abstract Developed societies, although having successfully reduced the burden of infectious disease, constitute an environment where metabolic, cardiovascular, and autoimmune diseases thrive. Living in westernized countries has not fundamentally changed the genetic basis on which these diseases emerge, but has strong impact on lifestyle and pathogen exposure. In particular, nutritional patterns collectively termed the "Western diet", including high-fat and cholesterol, high-protein, high-sugar, and excess salt intake, as well as frequent consumption of processed and 'fast foods', promote obesity, metabolic syndrome, and cardiovascular disease. These factors have also gained high interest as possible promoters of autoimmune diseases. Underlying metabolic and immunologic mechanisms are currently being intensively explored. This review discusses the current knowledge relative to the association of "Western diet" with autoimmunity, and highlights the role of T cells as central players linking dietary influences to autoimmune pathology.

Keywords Western diet · Autoimmune diseases · Autoimmunity · Obesity · Sodium · Inflammatory · Gut microbiome · T cell regulation

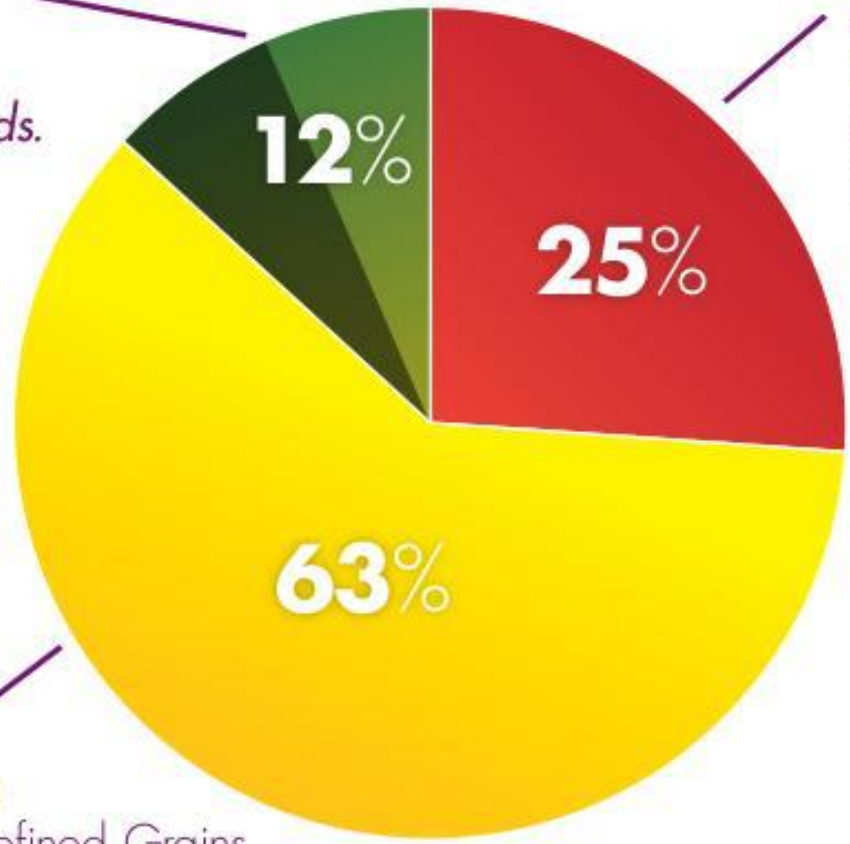
Introduction

Autoimmune diseases such as multiple sclerosis (MS), rheumatoid arthritis (RA), inflammatory bowel disease (IBD), type

U.S. FOOD CONSUMPTION
AS A % OF CALORIES

PLANT FOOD:
Vegetables, Fruits, Legumes, Nuts & Seeds, Whole Grains
***Fiber** is only found in plant foods.*

NOTE: Up to half of this category may be processed, for example almonds in candy bars, apples in apple pies or spinach in frozen spinach soufflé, and of course these would not be healthy choices. The focus should be on whole unprocessed vegetables, fruits, legumes, nuts and seeds and whole grains.



ANIMAL FOOD:
Meat, Dairy, Eggs, Fish, Seafood
***Cholesterol** is only found in animal foods. Animal foods are the PRIMARY source of saturated fat.*

PROCESSED FOOD:
Added Fats & Oils, Sugars, Refined Grains

GUIDE TO HEALTHY EATING:
Much easier to understand than the USDA Food Pyramid, with no food industry influence.

Eat **LESS** from the animal and processed food groups and **MORE** whole foods from the plant food group.

In general, food from the animal and processed food group contribute to disease, while **WHOLE** foods from the plant group contribute to good health.


EXTRA! EXTRA!
READ ALL ABOUT IT!!
NEWS
HEADLINE
The Evening Herald
EXTRA!
WEARNESS FROM THE WILDS
Diet and nutritional aspects in systemic lupus erythematosus
Karin Klack, Eloisa Bonfa, Eduardo Ferreira Borba Neto
ABSTRACT
Dietary Risk Factors for the Develop Inflammatory Polyarthritis
Evidence for a Role of High Level of Red Meat Consumption
high level of red meat consumption represent a novel risk for inflammato
"it is safe to state that the adequate
treatment of SLE is mainly aimed at redu
for cardiovascular and atherosclerotic disea
ELSEVIER
Review Article
Diet and risk of inflammatory bowel disease
Vibeke Andersen, Anja Olsen, Franck Carbonnel, Anne Tjønneland, Ulla Vogel
Digestive and Liver Disease
journal homepage: www.elsevier.com/locate/dld
A diet high in protein, particularly animal protein, may be associated with increased risk of IBD and relapse
Low-fat, plant-based diet in multiple sclerosis: A random
controlled trial
Vijayshree Yadav, Gail Marracci, Edward Kim, Rebecca Spain, Michelle Cameron, Shannon Overs, Andrew Riddehough, David K.B. Li, John McDougall, Jesus Lovera, Charles Murchison, Dennis Bourdette

Published in final edited form as:
J Gastroenterol. 2014 May ; 49(5): 785–798. doi:10.1007/s00535-014-0953-z.

The role of diet on intestinal microbiota metabolism: Downstream impacts on host immune function and health, and therapeutic implications

Balfour
f North
biology
be one of
n mass sp
uman phy

October 3, 2017

Gut bacteria from multiple sclerosis patients modulate human T cells and exacerbate symptoms in mouse models

Egle Cekanaviciute[a,1,2], Bryan B. Yoo[b,1], Tessel F. Runia[a,3], Justine W. Debelius[c], Sneha Singh[a], Charlotte A. Nelson[a], Rachel Kanner[a], Yadira Bencosme[d], Yun Kyung Lee[b,4], Stephen L. Hauser[a], Elizabeth Crabtree-Hartman[a], Ilana Katz Sand[d], Mar Gacias[d], Yunjiao Zhu[d], Patrizia Casaccia[d,e], Bruce A. C. Cree[a], Rob Knight[c], Sarkis K. Mazmanian[b], and Sergio E. Baranzini[a,5]

[a]Department of Neurology, University of California, San Francisco, CA 94158; [b]Division of Biology & Biological Engineering, California Institute of Technology, Pasadena, CA 91125; [c]Center for Microbiome Innovation, University of California, San Diego, La Jolla, CA 92093; [d]Department of Neuroscience, Icahn School of Medicine at Mount Sinai, New York, NY 10029; and [e]Advanced Science Research Center, City University of New York, New York, NY 10031

Edited by Lawrence Steinman, Stanford University School of Medicine, Stanford, CA, and approved August 7, 2017 (received for review June 30, 2017)

Part 1. 71 MS patients 71 Healthy Controls

VS

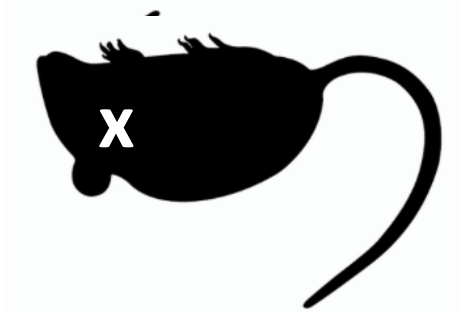
Acinetobacter
Akkermansia

Pro-inflammatory

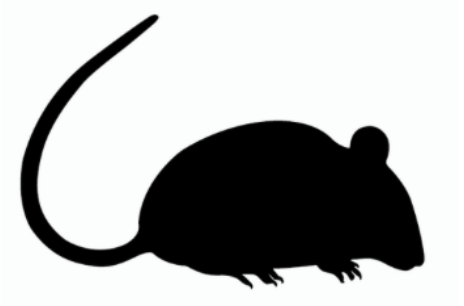
Parabacteroides

Anti-inflammatory

Part 2. TRANSPLANT INTO GERM FREE EAE MICE



Severe Disease Activity



Immunological and Clinical Effect of Diet Modulation of the Gut Microbiome in Multiple Sclerosis Patients: A Pilot Study

Marina Saresella[1†], Laura Mendozzi[2†], Valentina Rossi[2], Franca Mazzali[2], Federica Piancone[1], Francesca LaRosa[1], Ivana Marventano[1], Domenico Caputo[2], Giovanna E. Felis[3] and Mario Clerici[1,4]*

[1]Laboratory of Molecular Medicine and Biotechnology, Don Gnocchi Foundation, IRCCS, Milan, Italy, [2]Department of Neurology, Don Gnocchi Foundation, IRCCS, Milan, Italy, [3]Department of Biotechnology, University of Verona, Verona, Italy, [4]Department of Physiopathology and Transplants, University of Milano, Milan, Italy

OPEN ACCESS

Edited by:
Jens Geginat, Istituto Nazionale Genetica Molecolare (INGM), Italy

Reviewed by:
Markus Kleinewietfeld, VIB-UGent Center for Inflammation Research, Belgium
Maria Cecilia Giron, Università degli Studi di

Pathogenesis of autoimmune disorders, including multiple sclerosis (MS), has been linked to an alteration of the resident microbial commensal community and of the interplay between the microbiota and the immune system. Dietary components such as fiber, acting on microbiota composition, could, in principle, result in immune modulation and, thus, could be used to obtain beneficial outcomes for patients. We verified this hypothesis in a pilot study involving two groups of clinically similar relapsing-remitting

PILOT STUDY:MILAN ITALY, 20 MS PATIENTS

- 10 HV/LP DIET VS. 10 WESTERN DIET

1 Year later …..

↑ **Lachnospiraceae**

↓

BUTYRATE = Anti-inflammatory

Rx FOOD

But the reality is…

ONLY 1 IN 4

medical schools meets federal requirements for nutrition education.[6]


Did you know eating a healthy diet can Prevent diseases!
But what is a healthy diet?
Just ask your doctor!
Right of course, He’s the expert!!

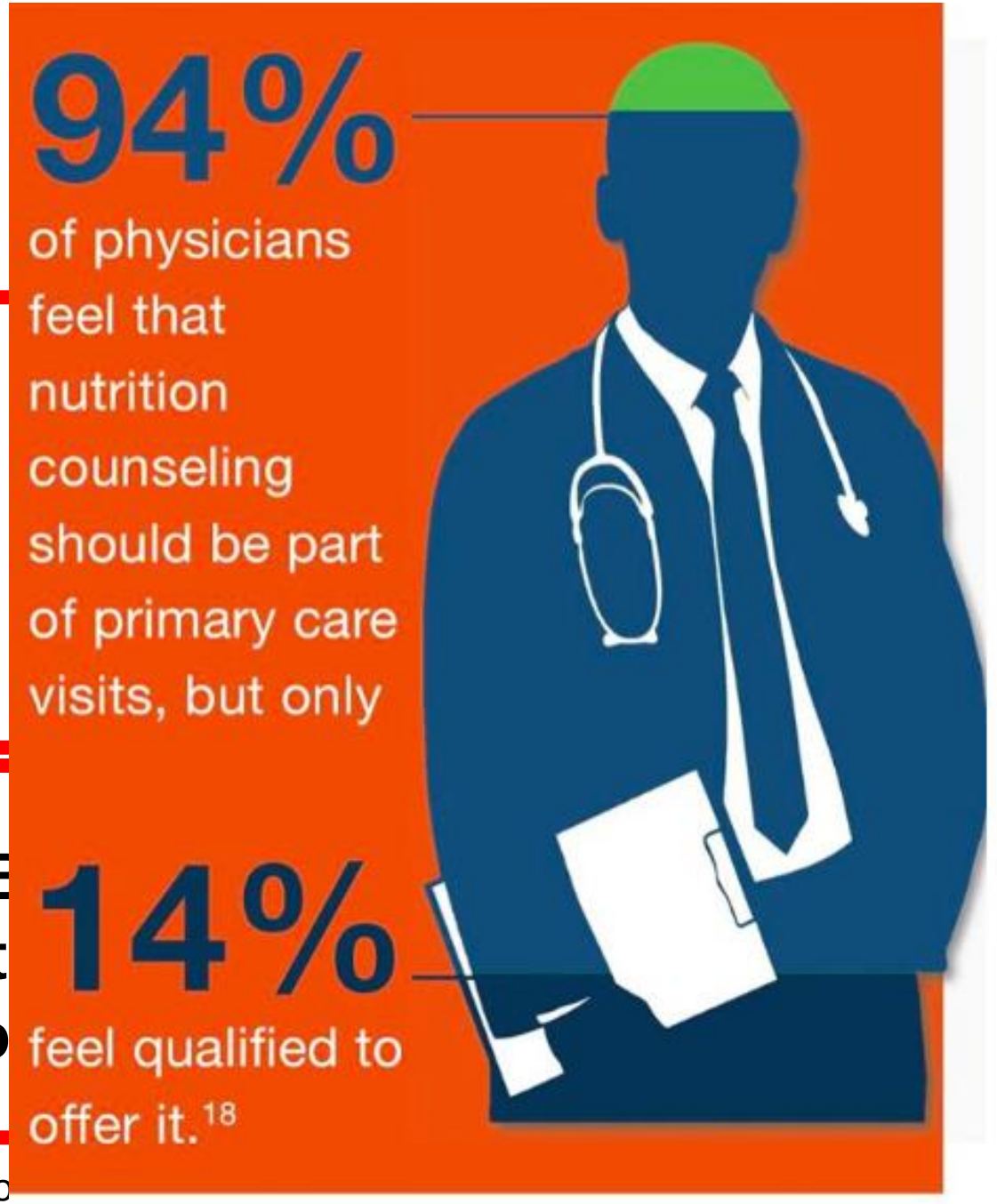
Physicians are considered by the public to be the best, **most credible source** of information about nutrition.[5]

PhysiciansCommittee for Responsible Medicine

The problem….

Upon graduation, Less than half believe nutrition is important

Medical E… Do not t… nutrition o…



…ning

…s

…on

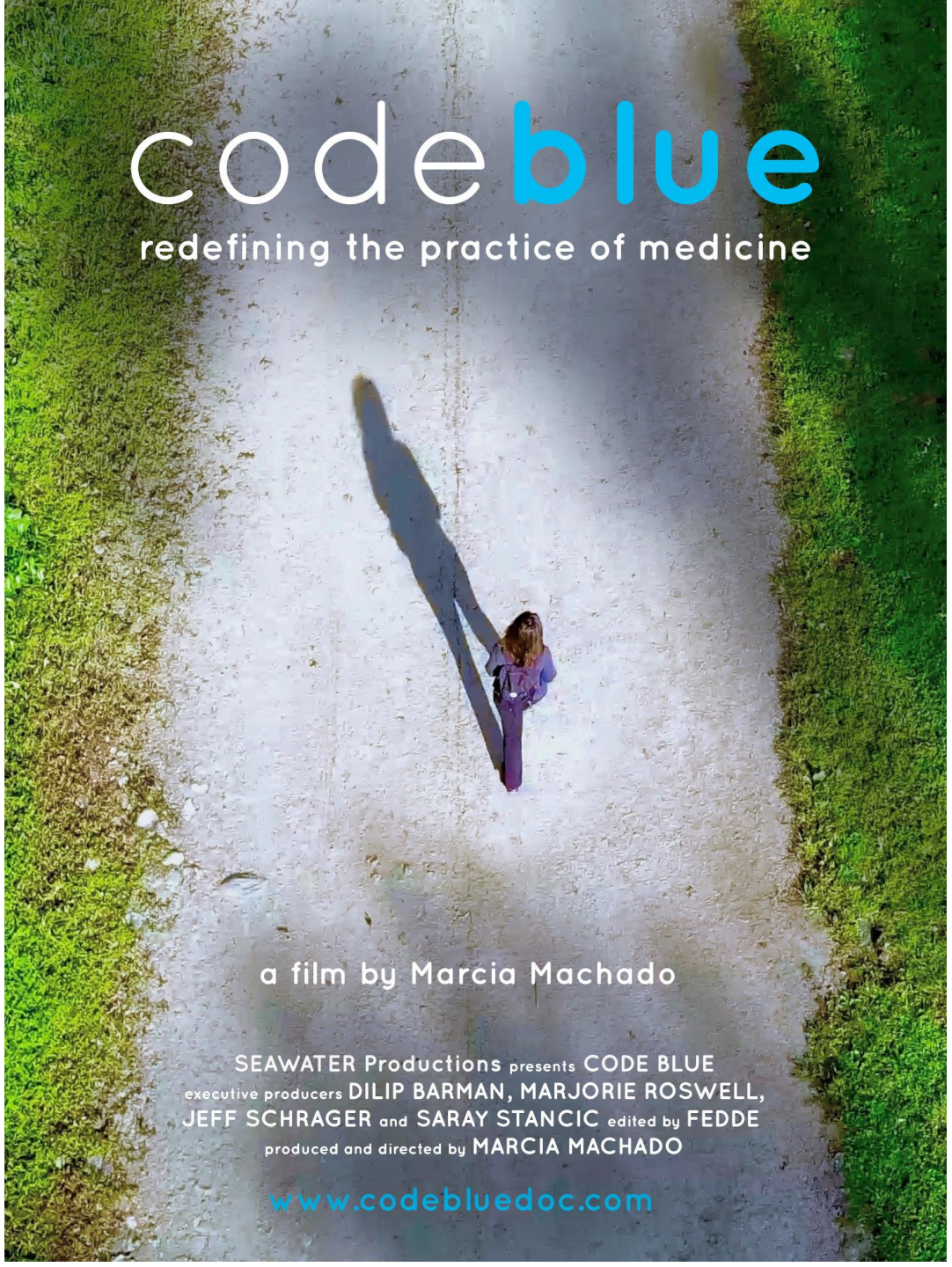
Nutrition Educatio… …gess Acad Med 2015

CODE BLUE
ELEVATOR

ELEVATOR # 22
PATIENT AND EMERGENCY MEDICAL EQUIPMENT
PHONE 60290

This elevator has been designated for Patient and Emergency Medical Equipment transportation ONLY.

Please use adjacent elevators for


codeblue
redefining the practice of medicine
a film by Marcia Machado
SEAWATER Productions presents CODE BLUE
executive producers DILIP BARMAN, MARJORIE ROSWELL,
JEFF SCHRAGER and SARAY STANCIC edited by FEDDE
produced and directed by MARCIA MACHADO
www.codebluedoc.com

“As medicine and health care delivery in our nation continue to evolve in new and exciting ways, the US medical education system, which is based largely on an education model more than a century old, has not kept pace.”

-*American Medical Association*

Source Report :Accelerating change in medical education: creating the medical school the future 2015

Antiquated Medical Education Model

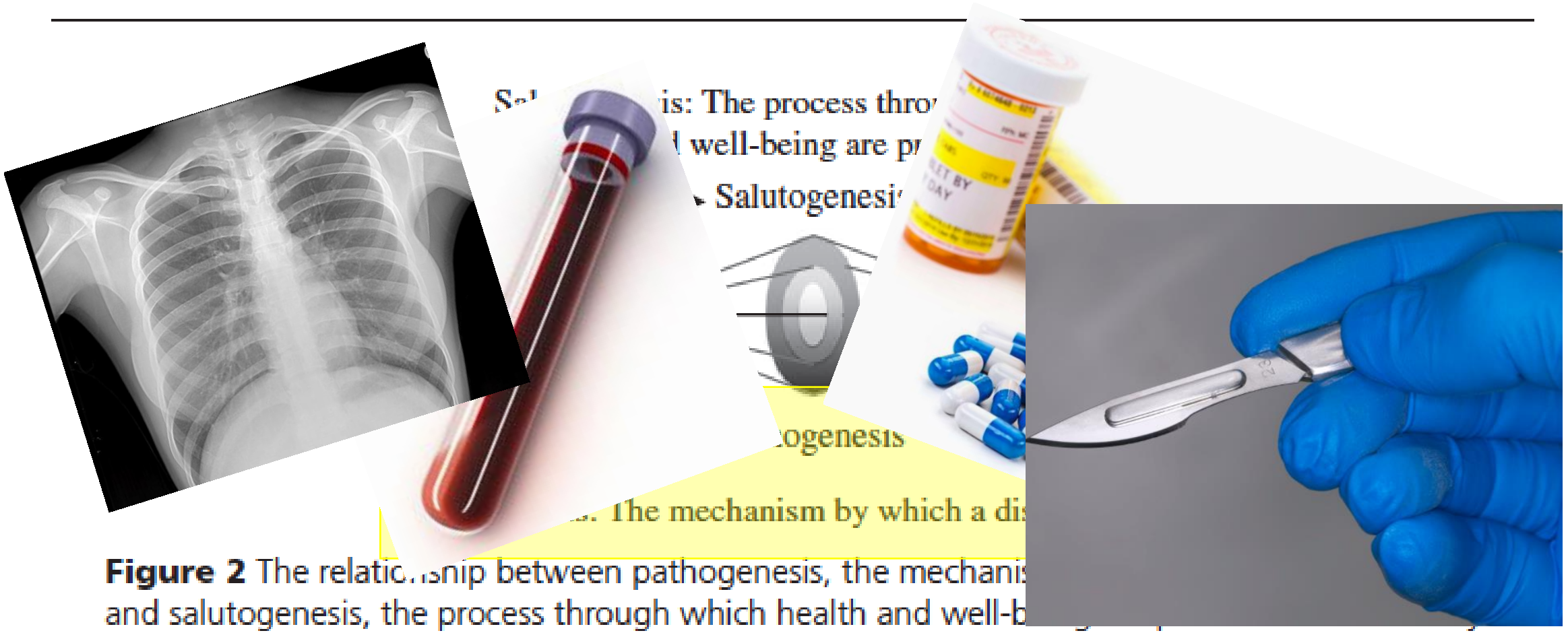


Figure 2 The relatic..ship between pathogenesis, the mechani
and salutogenesis, the process through which health and well-b
B. Jonas, MD, and Samueli Institute (www.SamueliInstitute.org). Reproduced with permission.

Source: Nutrition Education in an era of global obesity and diabetes. Eisenberg, Burgess Acad Med 2015

Antiquated Medical Education Model

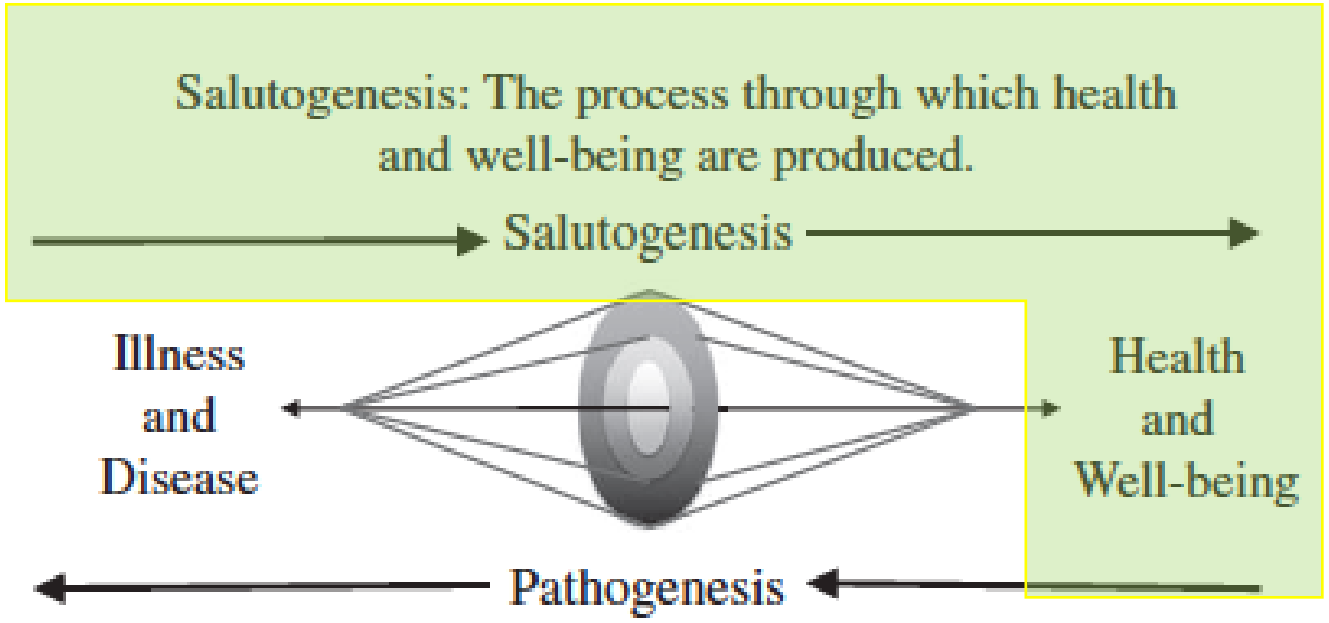


Figure 2 The relationship between pathogenesis, the mechanism by which a disease is caused, and salutogenesis, the process through which health and well-being are produced. Credit: Wayne B. Jonas, MD, and Samueli Institute (www.SamueliInstitute.org). Reproduced with permission.

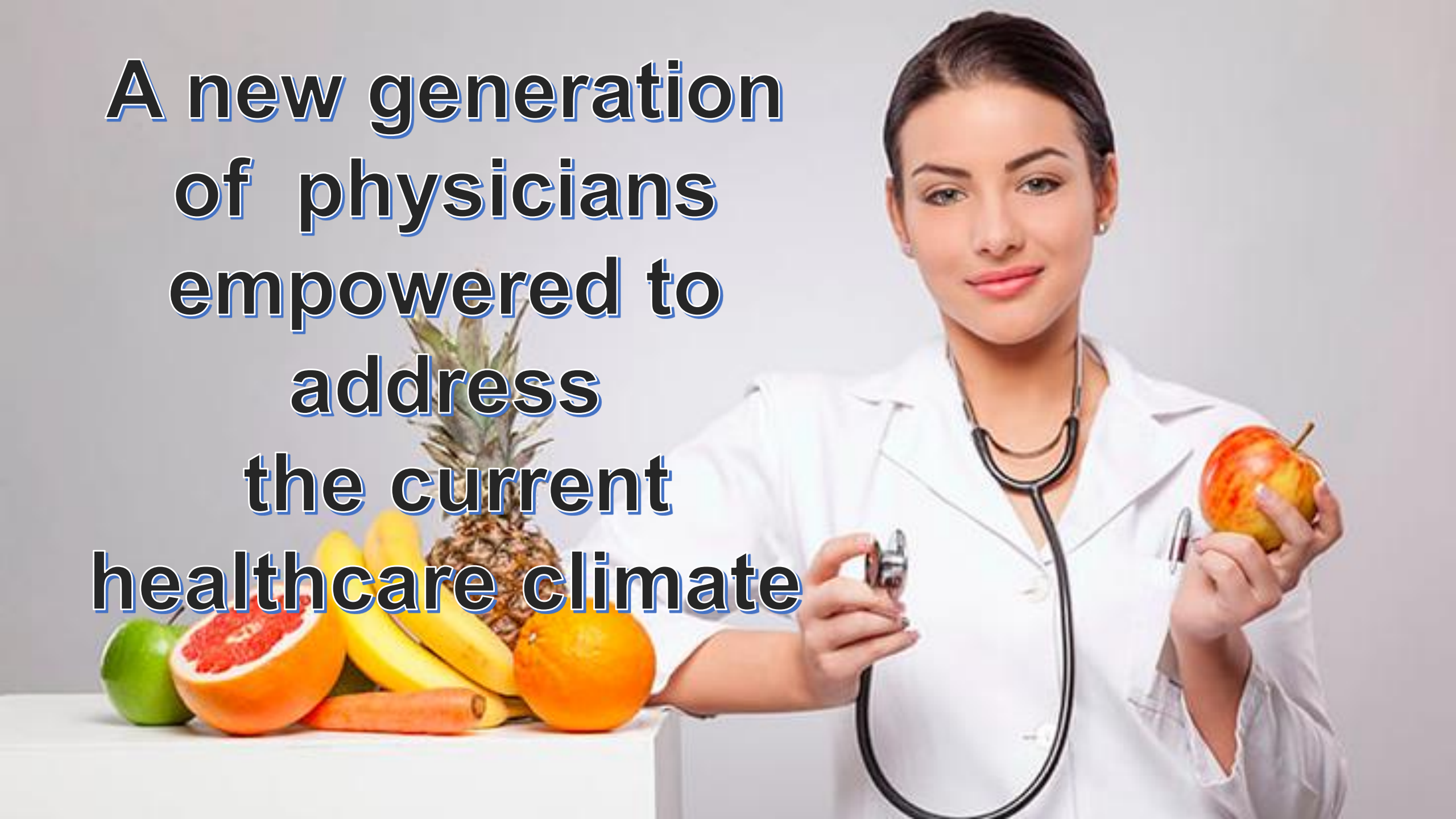
Source: Nutrition Education in an era of global obesity and diabetes. Eisenberg, Burgess Acad Med 2015

Salutogenesis medical education model

“Future curricula would include modules on nutrition, exercise, sleep, mindfulness,
self care, and developing cutting edge skills to support expertise in counseling patients on behavioral change."

Source: Nutrition Education in an era of global obesity and diabetes. Eisenberg, Burgess Acad Med 2015

A new generation of physicians empowered to address the current healthcare climate



Hippocratic Oath - Modern Version

I swear to fulfill, to the best of my ability and judgment, this covenant:
I will respect the hard-won scientific gains of those physicians in whose steps I walk, and gladly share such knowledge as is mine with those who are to follow.
I will apply, for the benefit of the sick, all measures [that] are required, avoiding those twin traps of overtreatment and therapeutic nihilism.
I will remember that there is art to medicine as well as science, and that warmth, sympathy, and

I will prevent disease whenever I can, for prevention is preferable to cure.

all thanks. But it may also be within my power to take a life; this awesome responsibility must be faced with great humbleness and awareness of my own frailty. Above all, I must not play at God.
I will remember that I do not treat a fever chart, a cancerous growth, but a sick human being, whose illness may affect the person's family and economic stability. My responsibility includes these related problems, if I am to care adequately for the sick.
I will prevent disease whenever I can, for prevention is preferable to cure.
I will remember that I remain a member of society, with special obligations to all my fellow human beings, those sound of mind and body as well as the infirm.
If I do not violate this oath, may I enjoy life and art, respected while I live and remembered with affection thereafter. May I always act so as to preserve the finest traditions of my calling and may I long experience the joy of healing those who seek my help.

“Do the best you can until you know better. Then when you know better, DO BETTER.”

- Maya Angelou

Thank you!

drstancic.com
codebluedoc.com

@drstancic

Saray Stancic M.D.

@StancicMD