

# Ortobioattivo, convegno conclusivo

## Progetto OBA.NUTRA.FOOD.

*Agroecologia per la produzione sostenibile di ortaggi nutraceutici*

Marina Clauser  
Andrea Battiatà



Sala Strozzi  
Museo di Geologia  
e Paleontologia  
4 Aprile 2022

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DIPARTIMENTO DI SCIENZE E TECNOLOGIE  
AGRICOLE, ALIMENTARI, AMBIENTALI E FORESTALI



Ricerca   PROGETTI DI RICERCA   PROGETTI IN CORSO

**OBA.NUTRA.FOOD**

Ricerca

**L'ALIMENTAZIONE**  
**dalla salute individuale**  
**alla salute del pianeta**

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# Nessun conflitto d'interesse da dichiarare!

## Definition of Conflict of Interest

*"A conflict of interest is a set of conditions in which professional judgment concerning a primary interest (such as a patient's welfare or the validity of research) tends to be unduly influenced by a secondary interest (such as financial gain)."*

D. F. Thompson, *Understanding Financial Conflicts of Interest*, 1993



# L'uomo è ciò che mangia.

*La teoria degli alimenti è di grande importanza etica e politica. I cibi si trasformano in sangue, il sangue in cuore e cervello; in materia di pensieri e di sentimenti. L'alimento umano è il fondamento della cultura e del sentimento. Se volete far migliore il popolo, in luogo di declamazioni contro il peccato, dategli un'alimentazione migliore.*

*(Il mistero del sacrificio o l'uomo è ciò che mangia, 1862)*

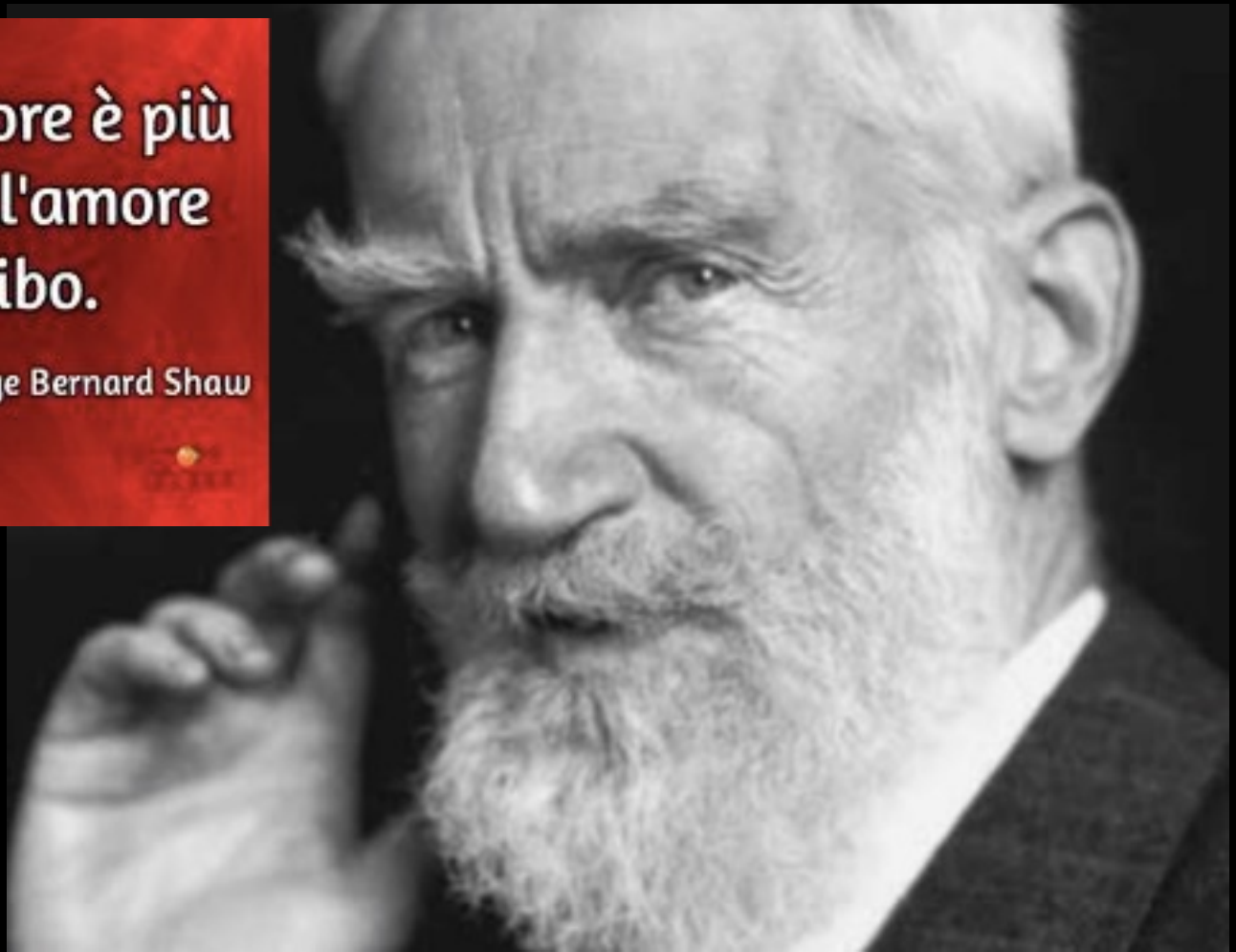


Ludwig A. Feuerbach  
1804-1872



Nessun amore è più  
sincero dell'amore  
per il cibo.

George Bernard Shaw



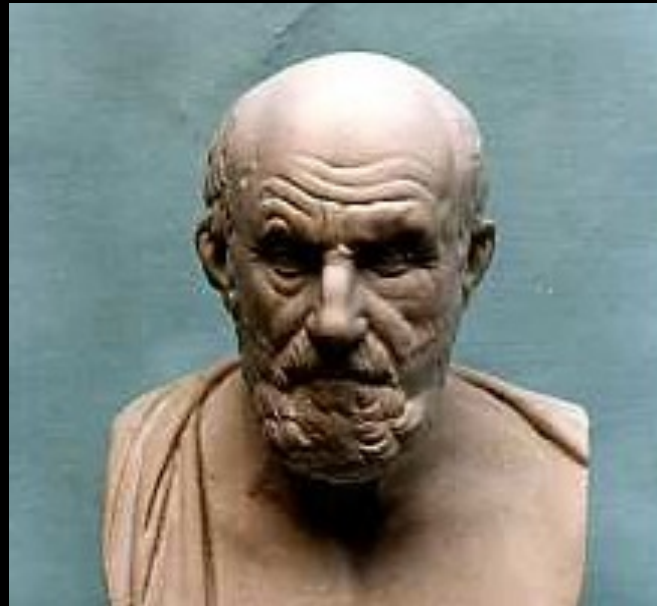
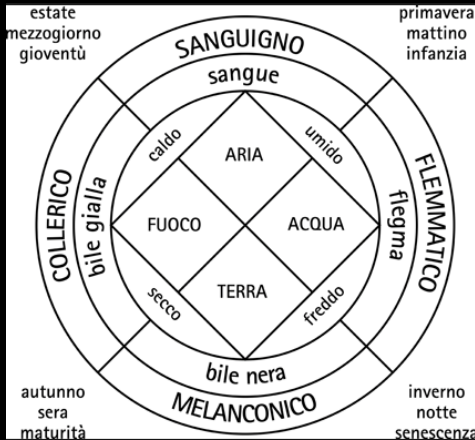
*George Bernard Shaw, Dublin, 1856-1950*



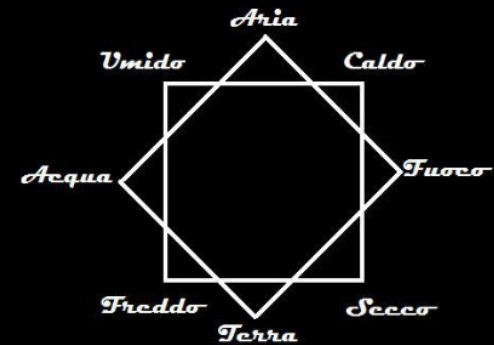


“... costituita di cibo, mio caro, è la mente...” (Chandogya Upanishad, VI, 5, 4)

# Ippocrate da Cos, 460-377 a.C.



Busto di Ippocrate, Uffizzi, Firenze



Fa' che il cibo sia la tua medicina e che la  
medicina sia il tuo cibo.





Research Paper

## Good food and bad: Nutritional and pleasurable eating in ancient Greece

John Wilkins  

 [Show more](#)

<http://dx.doi.org/10.1016/j.jep.2014.12.016>

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### Conclusion

Much of the analysis is devoted to understanding the flavours that were a key marker in the nutritional potencies attributed to foodstuffs. However there are clear and influential moral boundaries set by **Plato** in the discourse around food and pleasure. **While every physician should be a chef, and many wrote cookery books that have been lost, a chef's talent was located in increasing pleasure, and therefore a less valuable skill.** However the different literary genres show overlapping terminology and concerns, particularly with the quality of ingredients. Poor taste was not only a culinary concern. With regard to the setting of boundaries between foods and medicines, the transition between one category and another is frequently determined by the preparation and strengthening of a food's potency.





**PHYS ED**  
How Exercise Could  
Help You Learn a New  
Language



**VOICES**  
How Running Helped  
Me Face a Decades-  
Old Eating Disorder



**MEDITATION FOR  
REAL LIFE**  
How to Be Mindful  
While Grocery  
Shopping



**THE CHECKUP**  
On the Beach, the  
Once and Future Me



**Less Sleep Tied to  
Diabetes Risk in  
Children**



WELL | FAMILY

## *When the Prescription Is a Recipe*

By DONNA DE LA CRUZ AUG. 9, 2017





## Leonardo da Vinci's advice on public health

Leonardo da Vinci's notes in *Codex Atlanticus*<sup>1</sup> and *Manuscript B*<sup>2</sup> show that he foresaw a view of public health that was context-dependent, with a clear awareness of the role of food, air, and water quality for the effectiveness of health-care programmes. These notes provide practical indications regarding behavioural science, health, nutrition,<sup>1</sup> physical activity, and a kind of proto-physiatry, on the basis of his experience and observation.

Leonardo is an important public health conscious figure in the history of medicine, linking social health with lifestyle and urban planning. He understood that diseases are caused also by the discordance of elements in the living body and therefore that sometimes the function of medicine

minor channels, are primarily thought out and designed for hygienic reasons, to keep the city clean and ventilated.<sup>2</sup>

Leonardo had a visionary perception of what we refer to today as wide-

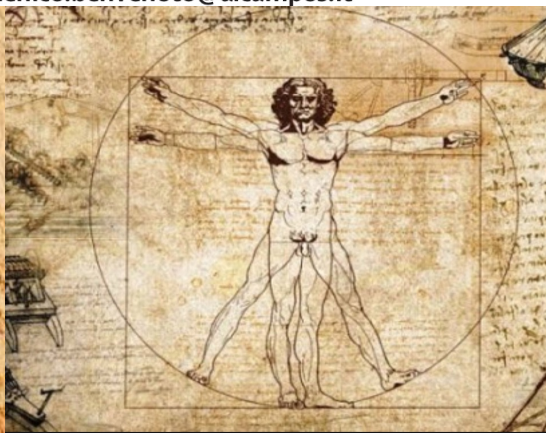
much like the advice all doctors should give: "If you want to stay healthy...do not eat if you are not hungry; your supper should be light; chew your food well; it should be well prepared and simple. Medications should be avoided".<sup>4</sup> Additional notes refer

Gaetano Lauri, *Vittoradairo Iambone*  
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www.thelancet.com Vol 395 February 1, 2020



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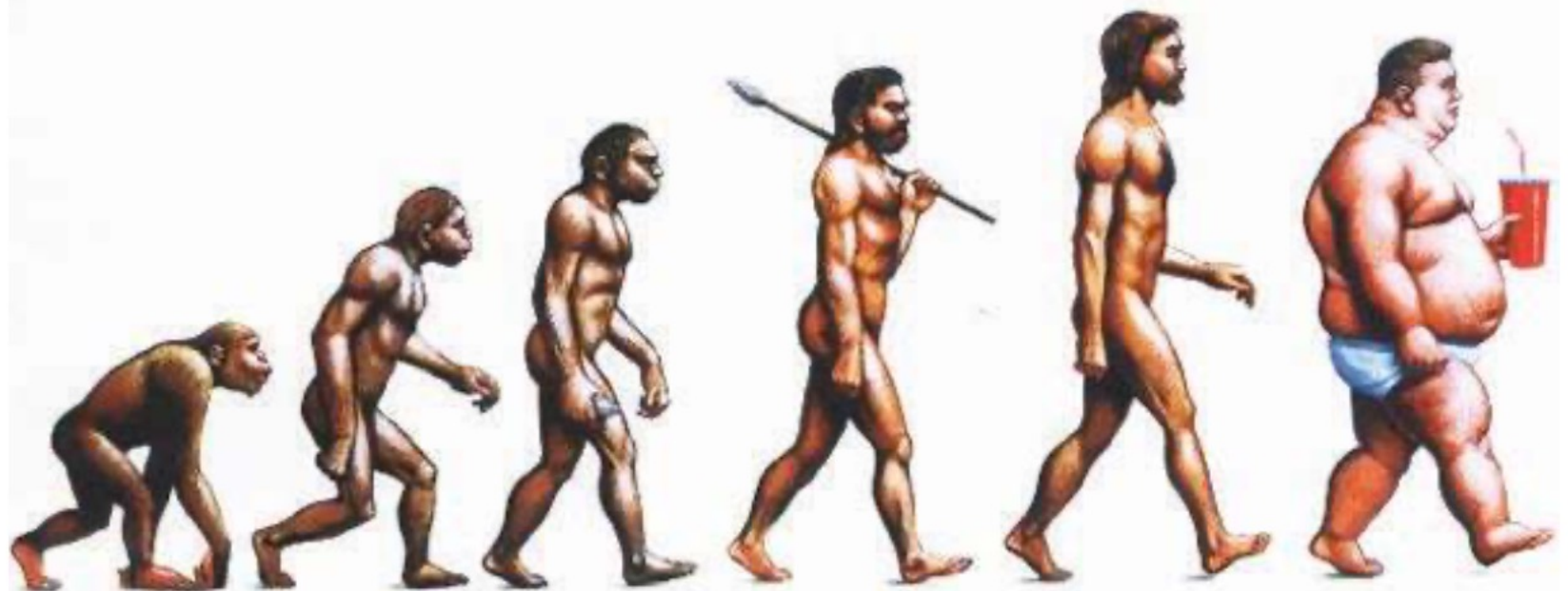




*Probabilmente una larga parte delle intuizioni e decisioni fondamentali nella storia dell'umanità sono nate attorno al fuoco o di fronte al caffè o a una tavola imbandita*







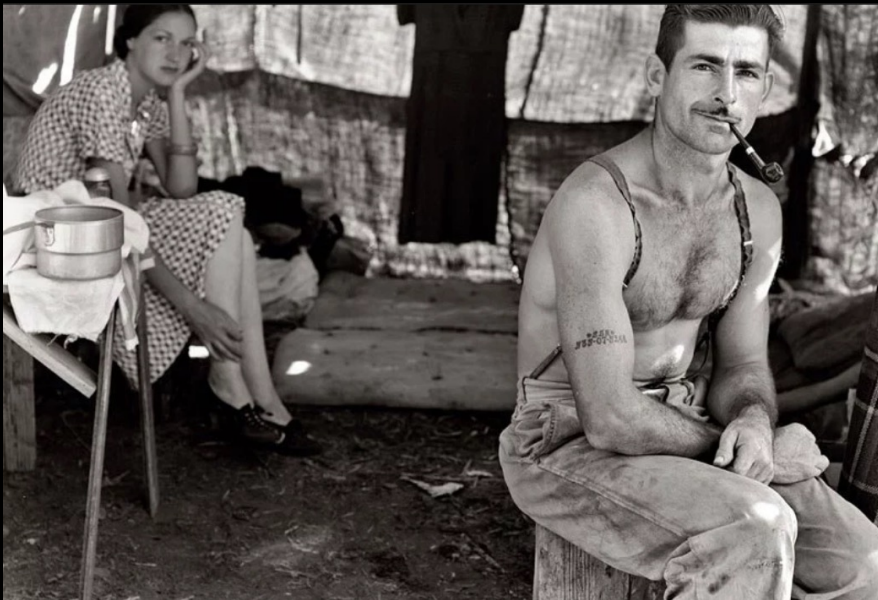




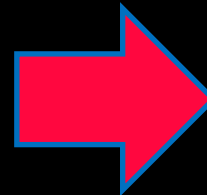
I nostri geni sono quelli di 150.000 anni fa

L'espressione genica, l'EPIGENETICA, si modifica ogni giorno per l'alimentazione, microbiota, stile di vita e altri fattori ambientali

Anni '50



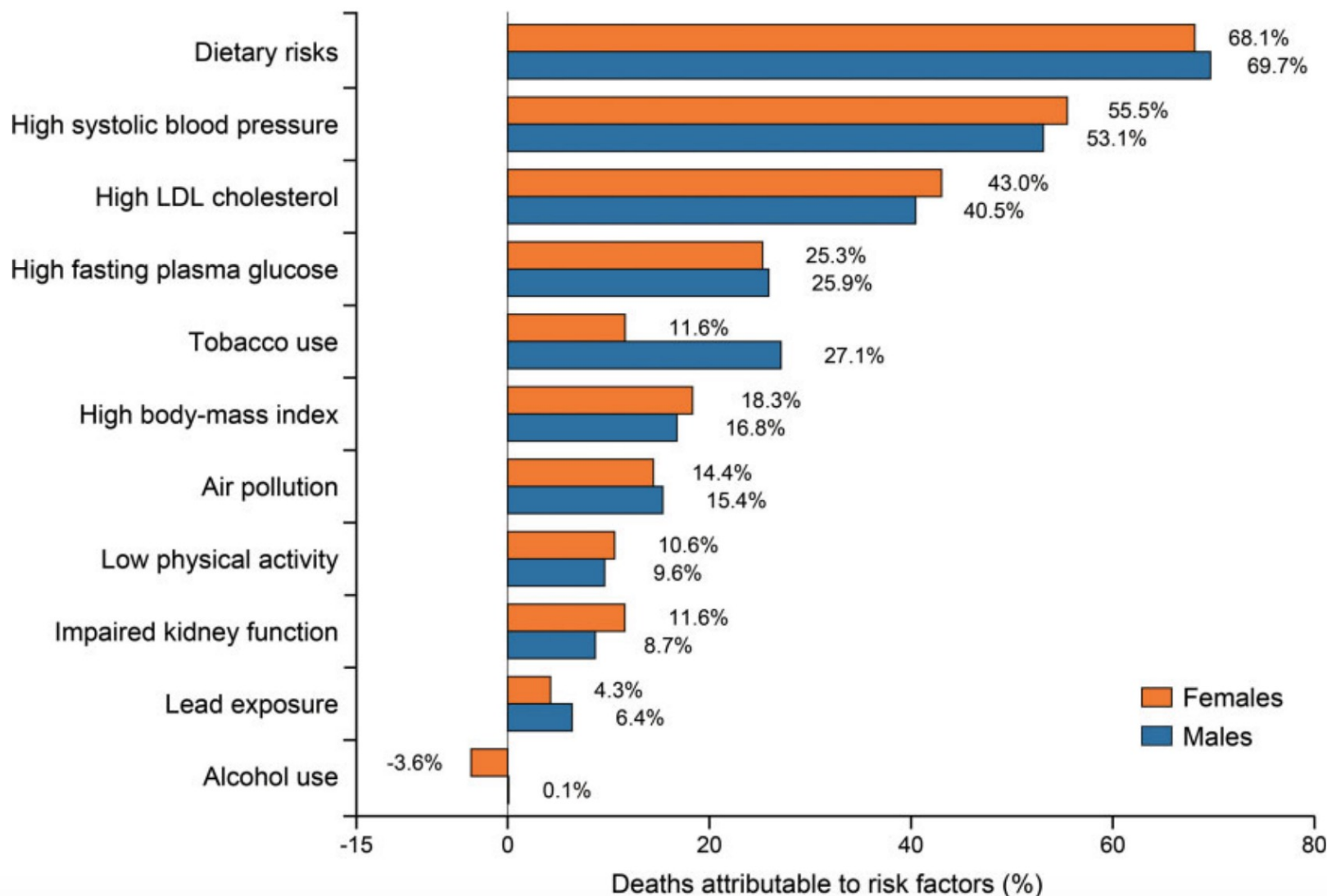
Oggi



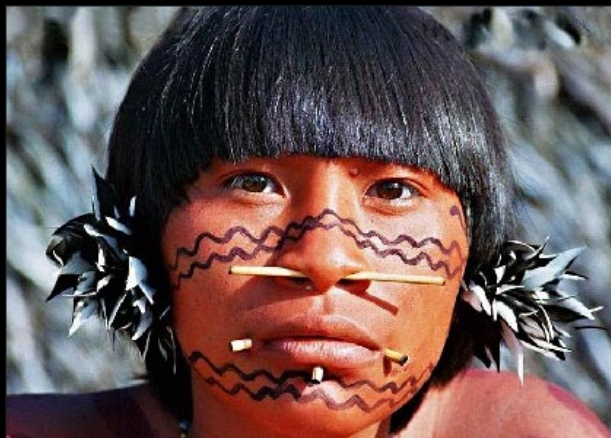
# Fattori di rischio per le malattie cardiovascolari

## Global, regional, and national burden of ischaemic heart disease and its attributable risk factors, 1990–2017: results from the Global Burden of Disease Study 2017

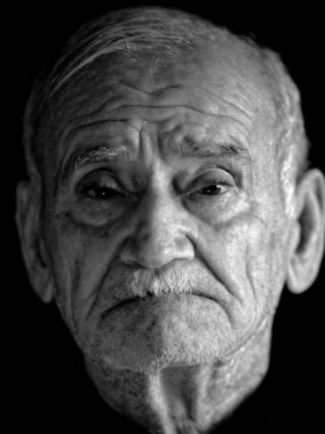
Haijiang Dai<sup>1,2</sup>, Arsalan Abu Much<sup>3,4</sup>, Elad Maor<sup>3,4</sup>, Elad Asher<sup>3,4</sup>, Arwa Younis<sup>5</sup>, Yawen Xu<sup>1</sup>, Yao Lu<sup>2</sup>, Xinyao Liu<sup>2\*</sup>, Jingxian Shu<sup>6\*</sup>, and Nicola Luigi Bragazzi<sup>1</sup>





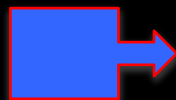


Cibo?

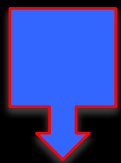


# VIDEO-CIBO-FARMACO-CRAZIA

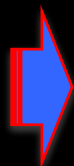
**MULTINAZIONALI  
CIBO e FARMACI**



SPINTA a CONSUMARE  
Fast food e Medicine  
Obesità e Patologie



PUBBLICITA'  
MARTELLANTE  
Modelli TV e WEB

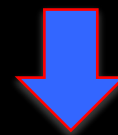


## ACQUISTI CONTINUI

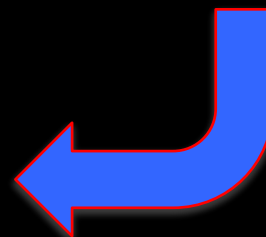
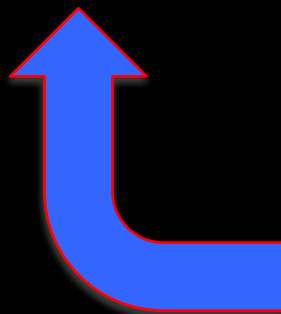
- Efficienza costante
- Apparire più che Essere
- Aspettative impossibili  
*(magro è sano e bello!)*



RICERCA della  
SOLUZIONE facile  
Pillola magica, Diete assurde  
tante medicine, integratori



SPINTA a RIMEDIARE  
Medicine e  
Trattamenti  
per dimagrire





di Francesco Tortora

# Ricerca OXFAM, 2016

# You could be ingesting a teaspoon of microplastic every week, study finds

ABC Newcastle By Ben Millington

Updated Wed at 1:45pm



Health » Food | Fitness | Wellness | Parenting | Live Longer

International Edition + 🔍 ☰

## You could be swallowing a credit card's weight in plastic every week

By Isabelle Gerretsen, CNN

🕒 Updated 1016 GMT (1816 HKT) June 12, 2019

**PHOTO:** WWF says since 2000 the world has produced as much plastic as all the preceding years combined.  
(Supplied: University of Newcastle, Maddison Carbery)





Contents lists available at ScienceDirect

Environment International

journal homepage: [www.elsevier.com/locate/envint](http://www.elsevier.com/locate/envint)



## Plasticenta: First evidence of microplastics in human placenta

# "Danni anche al cervello dei bimbi", allarme sul mix di sostanze chimiche nell'utero delle partorienti

### ARTICLE INFO

Handling Editor: Adrian Covaci

#### Keywords:

Human placenta

Microplastics

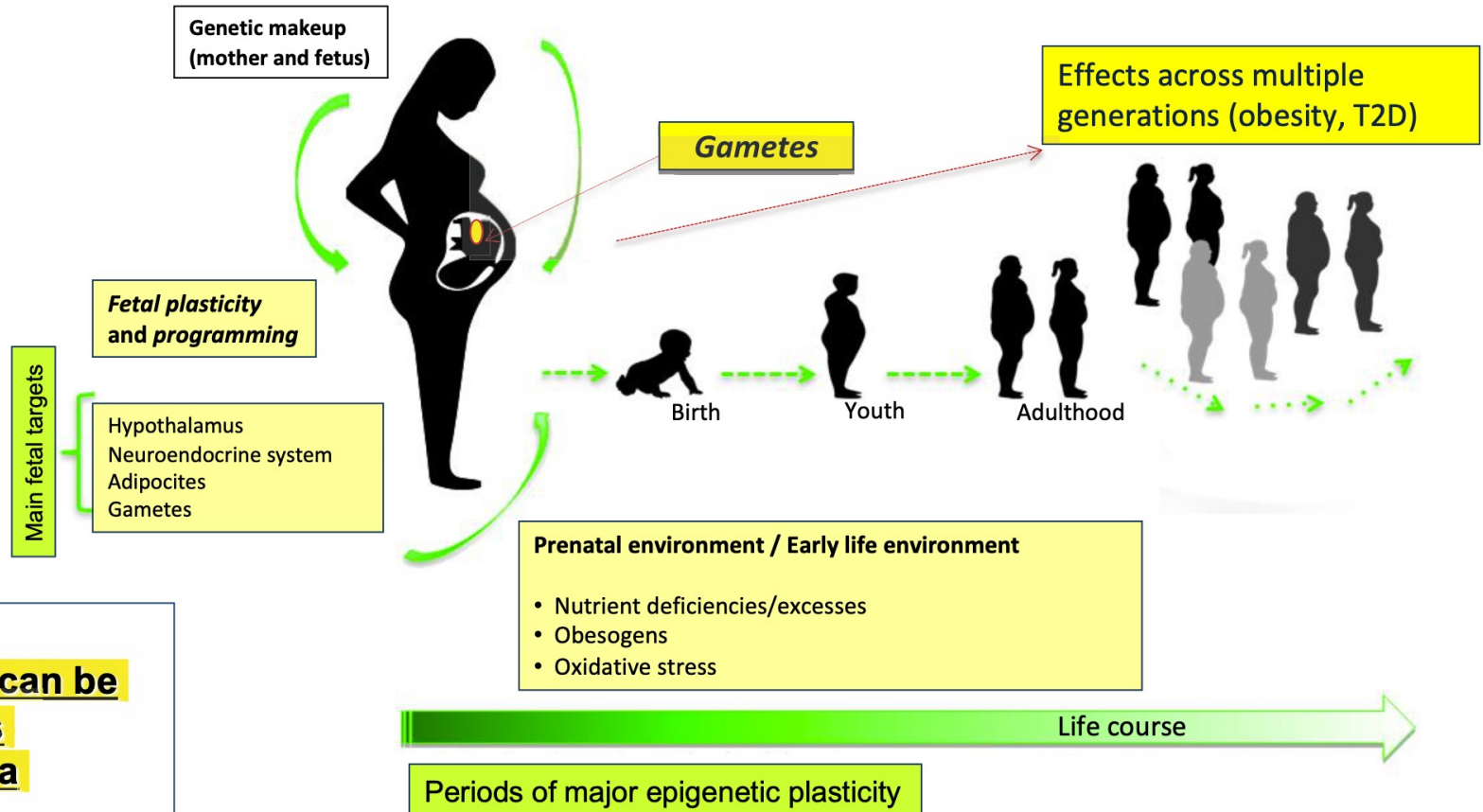
Raman microspectroscopy



### ABSTRACT

Microplastics are particles smaller than five millimeters deriving from the degradation of plastic objects present in the environment. Microplastics can move from the environment to living organisms, including mammals. In this study, six human placentas, collected from consenting women with physiological pregnancies, were analyzed by Raman Microspectroscopy to evaluate the presence of microplastics. In total, 12 microplastic fragments (ranging from 5 to 10  $\mu\text{m}$  in size), with spheric or irregular shape were found in 4 placentas (5 in the fetal side, 4 in the maternal side and 3 in the chorioamniotic membranes); all microplastics particles were characterized in terms of morphology and chemical composition. All of them were pigmented; three were identified as stained polypropylene a thermoplastic polymer, while for the other nine it was possible to identify only the pigments, which were all used for man-made coatings, paints, adhesives, plasters, finger paints, polymers and cosmetics and personal care products.

## Environmentally driven epigenetic effects



**Epigenetic modifications can be passed across generations – a “memory” of environmental influence that occurred many years previously.**

**OBESITY AND DIABETES: FROM GENETICS TO EPIGENETICS (Mol Rep 2015)**

Ernesto Burgio<sup>1,2</sup>, Angela Lopomo<sup>3,4</sup> and Lucia Migliore<sup>3</sup>



## MICROBIOME

# Fibre for the future

**A chronic lack of dietary fibre has been found to reduce the diversity of bacteria in the guts of mice. This effect is not fully reversed when fibre is reintroduced, and increases in severity over multiple generations. [SEE LETTER P.212](#)**

ERIC C. MARTENS

**P**eople living in industrialized nations routinely consume much less than the recommended amount of 25–38 grams

the polymeric molecules that cannot be broken down by these enzymes. However, these nutrients do not go to waste. Instead, the diverse microorganisms that have evolved to inhabit the human intestine — collectively called

representative complement of the gut microbiota members. They then fed the mice a diet rich in dietary fibre or one that contained only low fibre, in a form poorly accessible to the microbiota. After several weeks of fibre depri-

**Quello che mangiamo influirà,  
tramite il microbiota nel benessere  
delle generazioni future!**



OPEN ACCESS

**Rischio > 10%  
per  
tutti i tumori!**

# Consumption of ultra-processed foods and cancer risk: results from NutriNet-Santé prospective cohort

Thibault Fiolet,<sup>1</sup> Bernard Srour,<sup>1</sup> Laury Sellem,<sup>1</sup> Emmanuelle Kesse-Guyot,<sup>1</sup> Benjamin Allès,<sup>1</sup> Caroline Méjean,<sup>2</sup> Mélanie Deschasaux,<sup>1</sup> Philippine Fassier,<sup>1</sup> Paule Latino-Martel,<sup>1</sup> Marie Beslay,<sup>1</sup> Serge Hercberg,<sup>1,4</sup> Céline Lavalette,<sup>1</sup> Carlos A Monteiro,<sup>3</sup> Chantal Julia,<sup>1,4</sup> Mathilde Touvier<sup>1</sup>

## ABSTRACT OBJECTIVE

To assess the prospective associations between consumption of ultra-processed food and risk of cancer.

## DESIGN

Population based cohort study.

## SETTING AND PARTICIPANTS

104 980 participants aged at least 18 years (median age 42.8 years) from the French NutriNet-Santé cohort (2009-17). Dietary intakes were collected using repeated 24 hour dietary records, designed to register participants' usual consumption for 3300 different food items. These were categorised according to their degree of processing by the NOVA classification.

## MAIN OUTCOME MEASURES

Associations between ultra-processed food intake and risk of overall, breast, prostate, and colorectal cancer assessed by multivariable Cox proportional hazard models adjusted for known risk factors.

statistically significant after adjustment for several markers of the nutritional quality of the diet (lipid, sodium, and carbohydrate intakes and/or a Western pattern derived by principal component analysis).

## CONCLUSIONS

In this large prospective study, a 10% increase in the proportion of ultra-processed foods in the diet was associated with a significant increase of greater than 10% in risks of overall and breast cancer. Further studies are needed to better understand the relative effect of the various dimensions of processing (nutritional composition, food additives, contact materials, and neoformed contaminants) in these associations.

## STUDY REGISTRATION

Clinicaltrials.gov NCT03335644.

## Introduction

Cancer represents a major worldwide burden, with 14.1 million new cases diagnosed in 2012.<sup>1</sup> According

<sup>1</sup>Sorbonne Paris Cité Epidemiology and Statistics Research Center (CRESS), Inserm U1153, Inra U1125, Cnam, Paris 13 University, Nutritional Epidemiology Research Team (EREN), Bobigny, France

<sup>2</sup>INRA, UMR 1110 MOISA, 34000 Montpellier, France

<sup>3</sup>Department of Nutrition, School of Public Health, University of São Paulo, São Paulo 01246-904, Brazil

<sup>4</sup>Public Health Department, Avicenne Hospital, AP-HP, Bobigny, France

Correspondence to: B Srour b.srour@eren.smbh.univ-paris13.fr

Additional material is published online only. To view please visit the journal online.

Cite this as: *BMJ* 2018;360:k322 <http://dx.doi.org/10.1136/bmj.k322>

# Sale, zucchero e grassi nocivi

## Eating 'Junk-Food' Produces Rapid and Long-Lasting Increases in NAc CP-AMPA Receptors: Implications for Enhanced Cue-Induced Motivation and Food Addiction

Max F Oginisky<sup>1</sup>, Pauletto

<sup>1</sup>Department of Pharmacology, U

and Carrie R Ferrario<sup>\*,1</sup>

Urges to eat are influenced by food cues, reporting stronger cue-triggered motivational responses in obesity. This has led to the idea that obesity is particularly in obesity-susceptible individuals and recent work shows that cue-induced motivation is enhanced here we determined whether NAc CP-AMPA receptor (CP-AMPA) function in obesity-resistant populations using both human and rodent models used as a general 'read out' of motivation.

rats that gained weight on a 'junk-food' diet, consistent with greater responsivity of mesolimbic circuits in obesity-susceptible groups. In addition, eating 'junk-food' increased NAc calcium-permeable-AMPA (CP-AMPA) function only in obesity-susceptible rats. This increase occurred rapidly, persisted for weeks after 'junk-food' consumption ceased, and preceded the development of obesity. These data are considered in light of enhanced cue-triggered motivation and striatal function in obesity-susceptible rats and the role of NAc CP-AMPA receptors in enhanced motivation and addiction.

Neuropsychopharmacology advance online publication, 24 August 2016; doi:10.1038/npp.2016.111



people are more sensitive to cues. The nucleus accumbens (NAc) mediates motivation in people who are susceptible to obesity. This may contribute to obesity, as NAc CP-AMPA receptor (AMPA) transmission, which is enhanced by diet consumption. Therefore, we determined if there was an increase in obesity-susceptible vs. control rats. Locomotor activity was measured in response to cocaine in



NEWS | VOLUME 16, ISSUE 16, P1599-1600, DECEMBER 01, 2015

# Carcinogenicity of consumption of red and processed meat

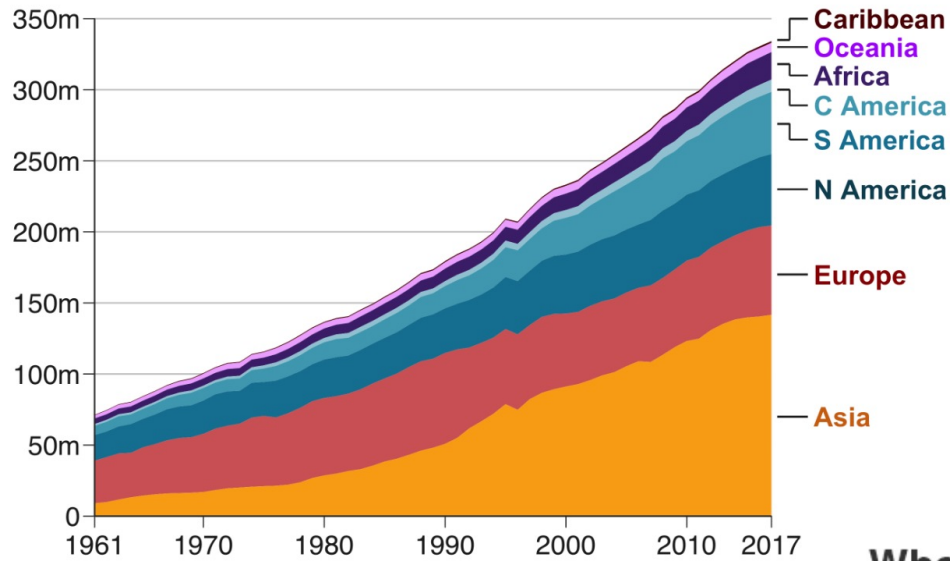
Véronique Bouvard • Dana Loomis • Kathryn Z Guyton • Yann Grosse • Fatiha El Ghissassi • Lamia Benbrahim-Tallaa •  
et al. [Show all authors](#)

Published: October 26, 2015 • DOI: [https://doi.org/10.1016/S1470-2045\(15\)00444-1](https://doi.org/10.1016/S1470-2045(15)00444-1)



## Meat production by region

Annual production, in tonnes

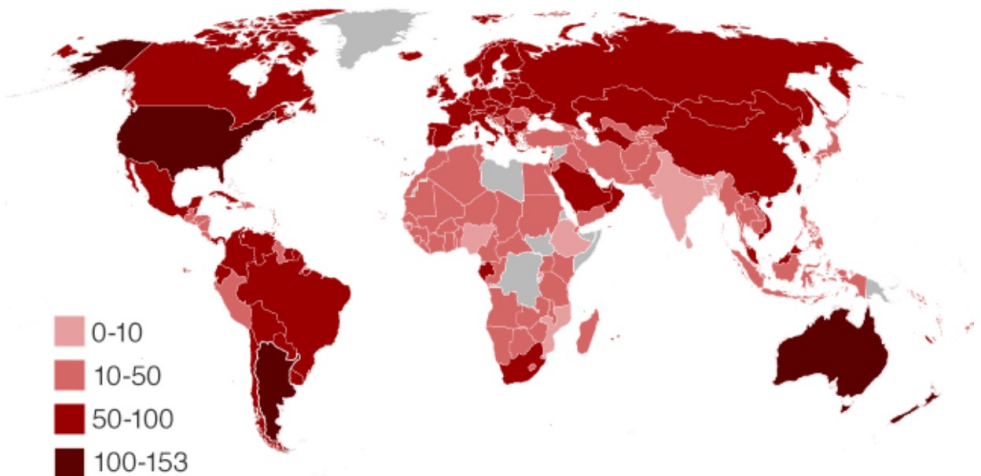


Source: UN Food and Agriculture Organization / Our World in Data



## Who eats the most meat?

Meat consumption (kg per person per year)

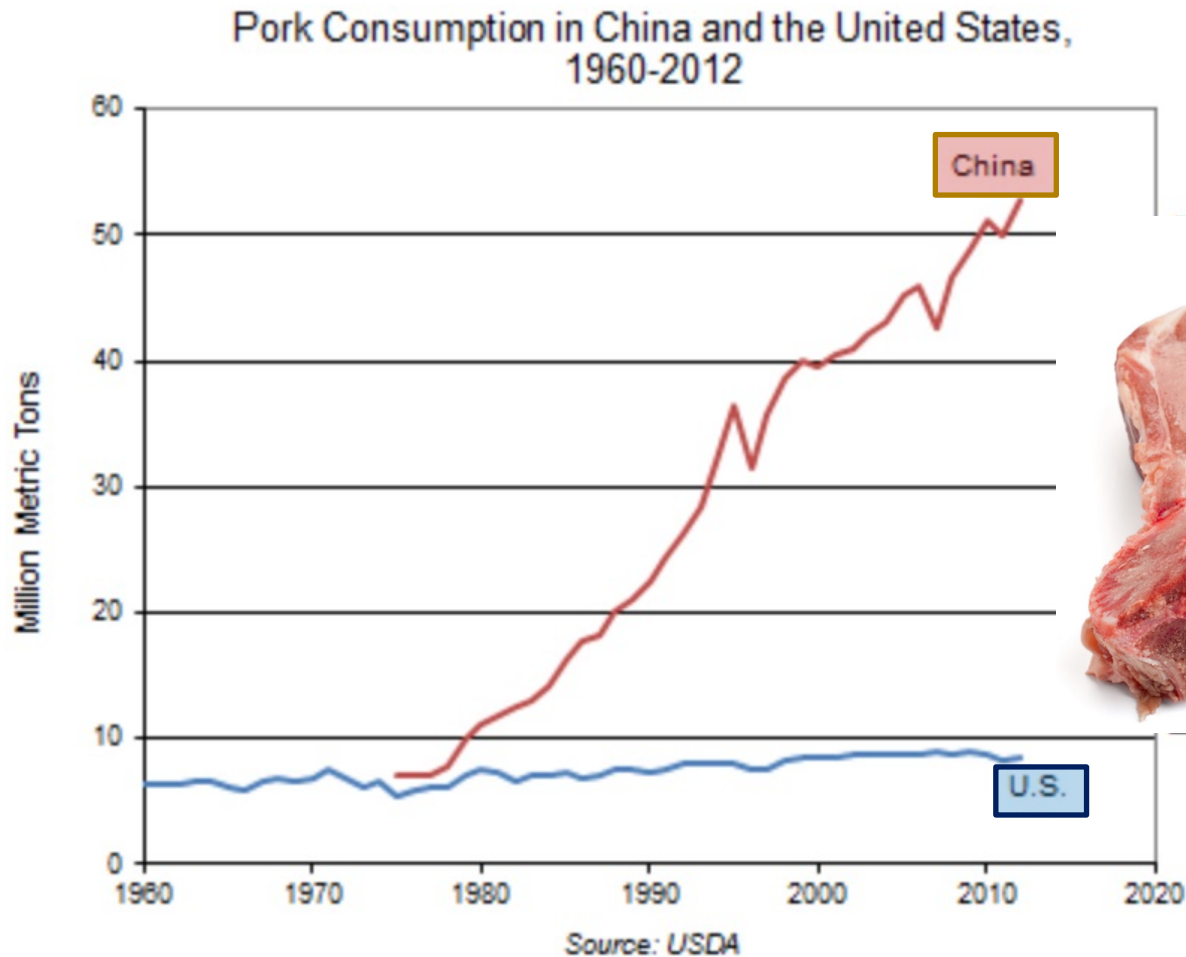


Source: UN Food and Agriculture Organization / Our World in Data





# IL CONSUMO DI CARNE CRESCE MOLTO NEI PAESI IN RAPIDO SVILUPPO E RIMANE COSTANTE IN QUELLI PIU' RICCHI





# Health effects of dietary risks in 195 countries, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017



GBD 2017 Diet Collaborators\*



## Summary

**Background** Suboptimal diet is an important preventable risk factor for non-communicable diseases (NCDs); however, its impact on the burden of NCDs has not been systematically evaluated. This study aimed to evaluate the consumption of major foods and nutrients across 195 countries and to quantify the impact of their suboptimal intake on NCD mortality and morbidity.

Published Online

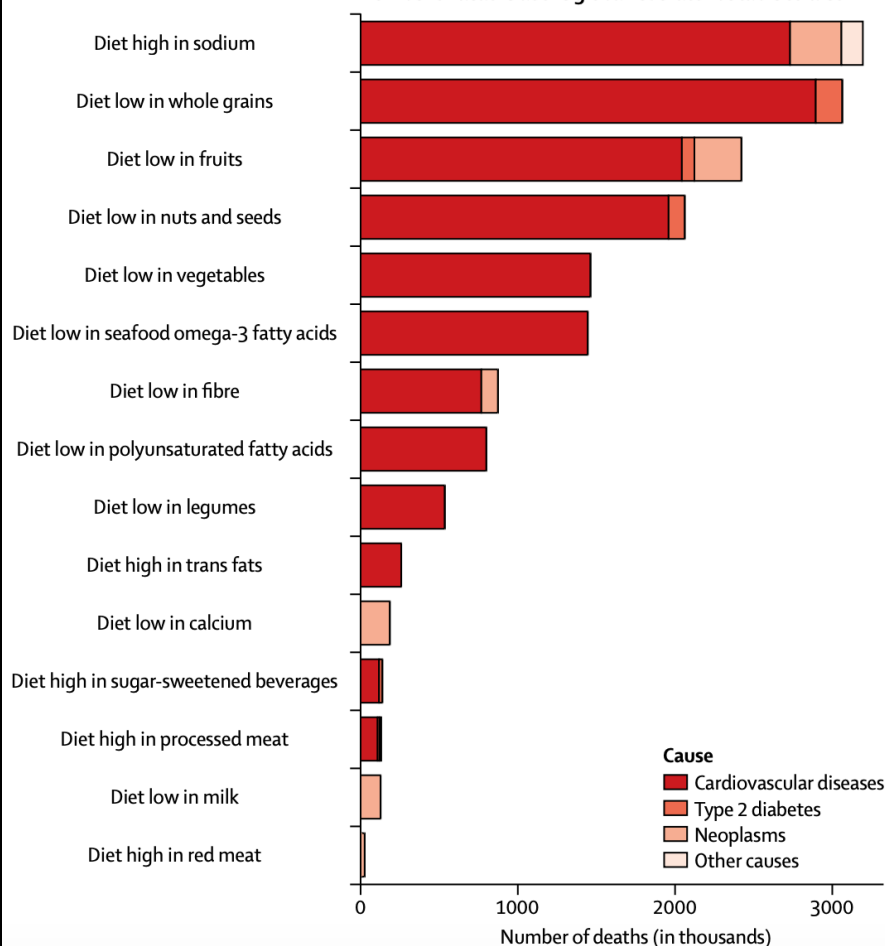
April 3, 2019

[http://dx.doi.org/10.1016/S0140-6736\(19\)30041-8](http://dx.doi.org/10.1016/S0140-6736(19)30041-8)

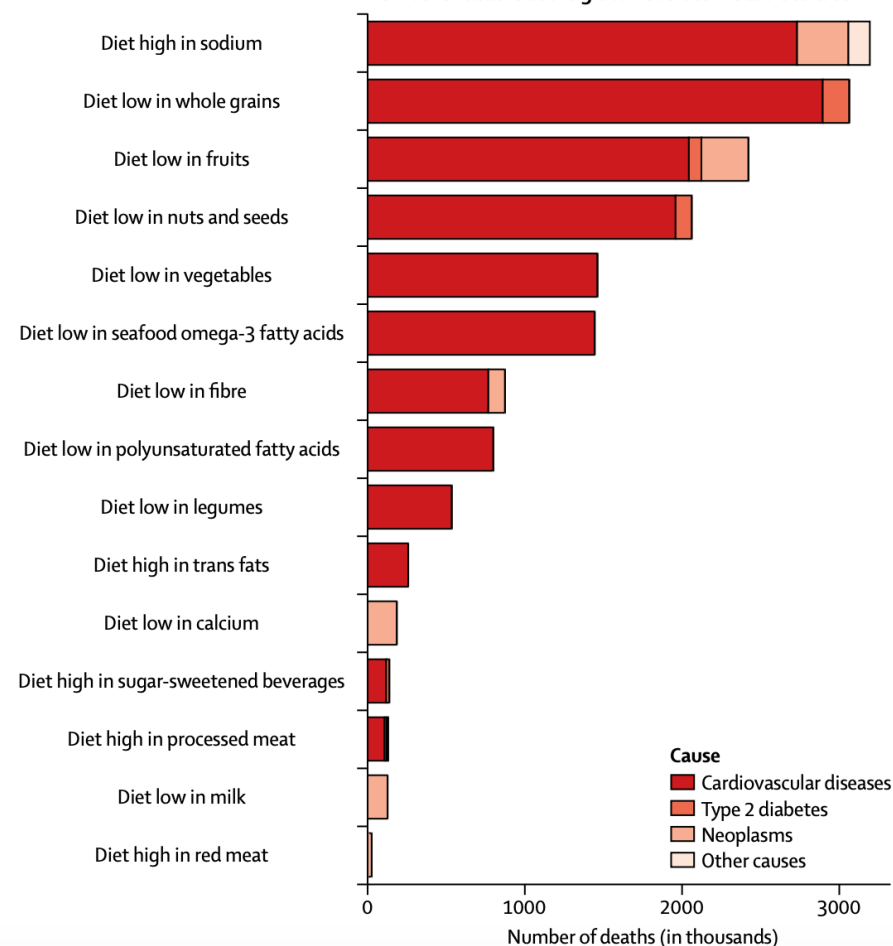
S0140-6736(19)30041-8

See Online for more details

Number of deaths at the global level attributable to diet



Number of deaths at the global level attributable to diet



# Dietary proteins and protein sources and risk of death: the Kuopio Ischaemic Heart Disease Risk Factor Study

*Heli EK Virtanen,<sup>1</sup> Sari Voutilainen,<sup>1</sup> Timo T Koskinen,<sup>1</sup> Jaakko Mursu,<sup>1</sup> Petra Kokko,<sup>1</sup> Maija PT Ylilauri,<sup>1</sup> Tomi-Pekka Tuomainen,<sup>1</sup> Jukka T Salonen,<sup>2,3</sup> and Jyrki K Virtanen<sup>1</sup>*

<sup>1</sup>Institute of Public Health and Clinical Nutrition, University of Eastern Finland, Kuopio, Finland; <sup>2</sup>MAS–Metabolic Analytical Services Oy, Helsinki, Finland; and <sup>3</sup>Faculty of Medicine, Department of Public Health, University of Helsinki, Helsinki, Finland



**Vs**



**Conclusions:** Higher ratio of animal to plant protein in diet and higher meat intake were associated with increased mortality risk. Higher total protein intake appeared to be associated with mortality mainly among those with a predisposing disease. This trial was registered at [clinicaltrials.gov](https://clinicaltrials.gov) as NCT03221127. *Am J Clin Nutr* 2019;0:1–10.







***Quale?***

# L'alimentazione del terzo millennio

- Prevalentemente Vegetale
- Verdure e Ortaggi crudi e cotti
- **Meglio se Nutraceutici**
- Frutta fresca e secca
- Varia, Stagionale e Biologica
- Cereali integrali e Legumi,
- Pesce, in prevalenza azzurro









SARDINE  
1 EURO  
kilo

2  
kilo

1.00  
kilo

CIBELLI  
CIBELLI  
CIBELLI





# Bianco



- Aglio, cipolle, cavolfiore, finocchio, funghi, porri, sedano, castagne, mele, pere.
- Elevato contenuto di un **phytochemical** con **potente azione antiossidante**: la **quercetina** (azione detossificante).
- Ricchi in fibra, sali minerali (soprattutto potassio), vitamine (in particolare la C).

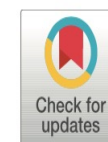
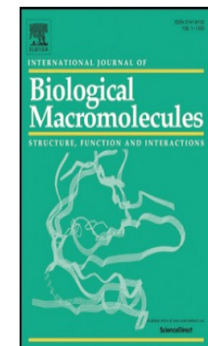




Contents lists available at ScienceDirect

# International Journal of Biological Macromolecules

journal homepage: <http://www.elsevier.com/locate/ijbiomac>



## Structural stability of SARS-CoV-2 3CLpro and identification of quercetin as an inhibitor by experimental screening

Olga Abian<sup>a,b,c,d,e,\*</sup>, David Ortega-Alarcon<sup>d,e,1</sup>, Ana Jimenez-Alesanco<sup>d,e,1</sup>, Laura Ceballos-Laita<sup>b,d,1</sup>,  
Sonia Vega<sup>d</sup>, Hugh T. Reyburn<sup>f</sup>, Bruno Rizzuti<sup>g</sup>, Adrian Velazquez-Campoy<sup>b,c,d,e,h,\*\*</sup>

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<sup>f</sup> Department of Immunology and Oncology, National Centre for Biotechnology (CNB), CSIC, 28049 Madrid, Spain

<sup>g</sup> CNR-NANOTEC, Licryl-UOS Cosenza and CEMIF.Cal, Department of Physics, University of Calabria, 87036 Rende, Italy

<sup>h</sup> Fundación ARAID, Gobierno de Aragón, 50018 Zaragoza, Spain





# viola



- Melanzane, radicchio, fichi, frutti di bosco, prugne, cavolo viola, uva nera.
- Contengono **antocianine**: phytochemicals caratterizzati da un elevato potere antiossidante.
- Ricchi di fibra; i frutti di bosco, in particolare, contengono fibra solubile che regola l'assorbimento degli altri nutrienti e che serve come nutrimento per la flora microbica intestinale che la trasforma in acidi grassi a catena corta.



# giallo-arancio



Tipico di questo gruppo di frutta e ortaggi è un phytochemical con potente azione provitaminica e antiossidante: il **b-carotene**, precursore della vitamina A, che interviene nella crescita, riproduzione, mantenimento dei tessuti epiteliali, funzione immunitaria e visione.

Questo gruppo di alimenti è anche ricco di **flavonoidi** che svolgono la loro azione per lo più a livello gastro-intestinale, neutralizzando la formazione di radicali liberi. L'arancia, il limone, il peperone sono ricchi in **vitamina C**.



# rosso



Caratteristico di questo gruppo di frutta e ortaggi è l'alto contenuto di due phytochemicals: il **licopene** e le **antocianine**.

I pomodori sono la fonte più importante di licopene

- Cottura + olio → più facile assorbimento
- Maturazione → alta concentrazione di licopene
- Alto potere antiox: cattura i radicali liberi agendo sulle membrane cellulari e sulle lipoproteine.







# verde



Tipico di questo gruppo di frutta e ortaggi è il contenuto di: **clorofilla** e **carotenoidi**.

Il colore verde di questi ortaggi è dovuto alla clorofilla, sostanza contenente un atomo di magnesio presente nelle parti verdi delle piante, in grado di catturare l'energia luminosa.

L'apporto di **magnesio** con gli ortaggi di questo gruppo è molto importante:

- partecipa al metabolismo di CHO e PROT
- modula la trasmissione nervosa e le contrazioni neuromuscolari.
- stimola l'assorbimento di calcio, fosforo, sodio e potassio.



**IL TUTTO È MAGGIORE  
DELLA SOMMA DELLE SUE PARTI**  
[ARISTOTELE]



SHARE November 30, 2021; 97 (22) [RESEARCH ARTICLE](#)

## Fish Intake and MRI Burden of Cerebrovascular Disease in Older Adults

 Aline Thomas,  Fabrice Crivello,  Bernard Mazoyer,  Stephanie Debette,  Christophe Tzourio,  Cecilia Samieri

### PATIENT PAGE

#### Section Editors

David C. Spencer, MD

Steven Karczeski, MD

## Eating seafood and cognitive decline in older adults

Lynne Shinto, ND, MPH

**WHAT WAS THIS STUDY ABOUT?** In the article “*APOE*  $\epsilon$ 4 and the associations of seafood and long-chain omega-3 fatty acids with cognitive decline,” van de Rest and colleagues examined the connection between the amount of seafood eaten per week

cakes, fresh fish, and shellfish like shrimp, crab, or lobster. Complete information from 915 participants on diet, thinking ability, and the *APOE*  $\epsilon$ 4 gene was used to produce the study results.

**Discussion** In this large population-based study, higher frequency of fish intake was associated with lower CVD burden, especially among participants <75 years of age, suggesting a beneficial effect on brain vascular health before manifestation of overt brain disease.





## **Il segreto dei Templari? L'alimentazione. "Ecco perché vivevano il doppio rispetto ai contemporanei"**

*Secondo una ricerca condotta da 4 medici su documenti antichissimi, la straordinaria longevità dei monaci-soldati era dovuta alle regole igieniche ed alimentari codificate da Bernardo di Chiaravalle: poca carne e molti legumi e poi pesce, formaggio, olio d'oliva e frutta fresca. Un regime moderno, inconsueto per l'epoca e antesignano della Dieta mediterranea*



## Review

Received: 29 July 2011

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Published online in Wiley Online Library: 19 March 2012

(wileyonlinelibrary.com) DOI 10.1002/jsfa.5639

# Comparison of nutritional quality between conventional and organic dairy products: a meta-analysis

Eny Palupi,<sup>a</sup> Anuraga Jayanegara,<sup>b†</sup> Angelika Ploeger<sup>a</sup> and Johannes Kahl<sup>a\*</sup>

## Abstract

As a contribution to the debate on the comparison of nutritional quality between conventional *versus* organic products, the present study would like to provide new results on this issue specifically on dairy products by integrating the last 3 years' studies using a meta-analysis approach with Hedges' *d* effect size method. The current meta-analysis shows that organic dairy products contain significantly higher protein, ALA, total omega-3 fatty acid, *cis*-9,*trans*-11 conjugated linoleic acid, *trans*-11 vaccenic acid, eicosapentanoic acid, and docosapentanoic acid than those of conventional types, with cumulative effect size ( $\pm 95\%$  confidence interval) of  $0.56 \pm 0.24$ ,  $1.74 \pm 0.16$ ,  $0.84 \pm 0.14$ ,  $0.68 \pm 0.13$ ,  $0.51 \pm 0.16$ ,  $0.42 \pm 0.23$ , and  $0.71 \pm 0.3$ , respectively. It is also observed that organic dairy products have significantly ( $P < 0.001$ ) higher omega-3 to -6 ratio (0.42 vs. 0.23) and  $\Delta 9$ -desaturase index (0.28 vs. 0.27) than the conventional types. The current regulation on organic farming indeed drives organic farms to production of organic dairy products with different nutritional qualities from conventional ones. The differences in feeding regime between conventional and organic dairy production is suspected as the reason behind this evidence. Further identical meta-analysis may be best applicable for summarizing a comparison between conventional and organic foodstuffs for other aspects and food categories.

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**Keywords:** nutrition; organic; comparison; dairy products; meta-analysis



Volume 117, Issue 2 January 2017, pp. 325-334

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## Prospective association between consumption frequency of organic food and body weight change, risk of overweight or obesity: results from the NutriNet-Santé Study

Emmanuelle Kesse-Guyot <sup>(a1)</sup>, Julia Baudry <sup>(a1)</sup>, Karen E. Assmann <sup>(a1)</sup>, Pilar Galan <sup>(a1)</sup> ... DOI: <https://doi.org/10.1017/S0007114517000058> Published online: 07 February 2017

### Abstract

A lower BMI has been reported among consumers of organic foods, but this relationship has never been examined in a prospective design study. Our aim was to prospectively investigate the association between frequency of organic food consumption and weight change. We analysed data from 62 224 participants of the NutriNet-Santé cohort (78 % women, mean age=45 years) with information on consumption frequency of organic foods, dietary intake and repeated anthropometric data. For sixteen products, participants reported their consumption frequency of labelled organic foods (never, occasionally, most of the time). An organic score (OS) with a maximum of thirty-two points was computed. The associations of the OS (modeled as quartiles (Q)) with change in BMI during follow-up (on average 3·1 years) and with the risk of overweight and obesity were estimated by ANCOVA and multivariable logistic regression. A lower BMI increase was observed across quartiles of the OS (mean difference Q4 v. Q1=−0·16 (95 % CI −0·32, −0·01). An increase in the OS was associated with a lower risk of overweight and obesity (among non-overweight and non-obese participants at inclusion): OR for Q4 v. Q1 were 0·77 (95 % CI 0·68, 0·86) and 0·69 (95 % CI 0·58, 0·82), respectively. Concerning obesity risk, the association was stronger among participants with higher adherence to nutritional guidelines. This study supports a strong protective role of consumption frequency of organic foods with regard to the risk of overweight and obesity that depends on overall dietary quality. Upon confirmation, these results may contribute to fine-tune nutritional guidelines by accounting for farming practices in food production.



# Alimenti BIO e rischio di Cancro

JAMA Internal Medicine | Original Investigation

## Association of Frequency of Organic Food Consumption With Cancer Risk

### Findings From the NutriNet-Santé Prospective Cohort Study

Julia Baudry, PhD; Karen E. Assmann, PhD; Mathilde Touvier, PhD; Benjamin Allès, PhD; Louise Seconda, MSc; Paule Latino-Martel, PhD; Khaled Ezzedine, MD, PhD; Pilar Galan, MD, PhD; Serge Hercberg, MD, PhD; Denis Lairon, PhD; Emmanuelle Kesse-Guyot, PhD

**IMPORTANCE** Although organic foods are less likely to contain pesticide residues than conventional foods, few studies have examined the association of organic food consumption with cancer risk.

**OBJECTIVE** To prospectively investigate the association between organic food consumption and the risk of cancer in a large cohort of French adults.

**DESIGN, SETTING, AND PARTICIPANTS** In this population-based prospective cohort study among French adult volunteers, data were included from participants with available information on organic food consumption frequency and dietary intake. For 16 products, participants reported their consumption frequency of labeled organic foods (never, occasionally, or most of the time). An organic food score was then computed (range, 0-32 points). The follow-up dates were May 10, 2009, to November 30, 2016.

**MAIN OUTCOMES AND MEASURES** This study estimated the risk of cancer in association with the organic food score (modeled as quartiles) using Cox proportional hazards regression models adjusted for potential cancer risk factors.

**RESULTS** Among 68 946 participants (78.0% female; mean [SD] age at baseline, 44.2 [14.5] years), 1340 first incident cancer cases were identified during follow-up, with the most prevalent being 459 breast cancers, 180 prostate cancers, 135 skin cancers, 99 colorectal cancers, 47 non-Hodgkin lymphomas, and 15 other lymphomas. High organic food scores were inversely associated with the overall risk of cancer (hazard ratio for quartile 4 vs quartile 1, 0.75; 95% CI, 0.63-0.88; *P* for trend = .001; absolute risk reduction, 0.6%; hazard ratio for a 5-point increase, 0.92; 95% CI, 0.88-0.96).

**CONCLUSIONS AND RELEVANCE** A higher frequency of organic food consumption was associated with a reduced risk of cancer. Although the study findings need to be confirmed, promoting organic food consumption in the general population could be a promising preventive strategy against cancer.

- [+ Invited Commentary](#)
- [+ Author Audio Interview](#)
- [+ Supplemental content](#)



***quanto***

Eat food.  
Not too much.  
Mostly plants.

Michael Pollan,  
In Defense of Food



GLI ADELPHI

*Michael Pollan*



In difesa del cibo

GLI ADELPHI

*Michael Pollan*

Il dilemma  
dell'onnivoro

*BEST. I WILL SERVE MY FELLOW*

*ASPIG di Howard e Langouste*



*YOU CANNOT GO WRONG WITH ASPIC*

Michael Pollan  
**La botanica  
del desiderio**

Il mondo visto dalle piante



inaggionato

*Michael Pollan*



COME CAMBIARE  
LA TUA MENTE

Adelphi

GLI ADELPHI

*Michael Pollan*

Cotto



MICHAEL  
POLLAN

BREVIARIO DI  
RESISTENZA  
ALIMENTARE

64 regole per  
mangiare bene

BUR varia







In un'incisione su una piramide egizia del 3800 a.C. si legge:

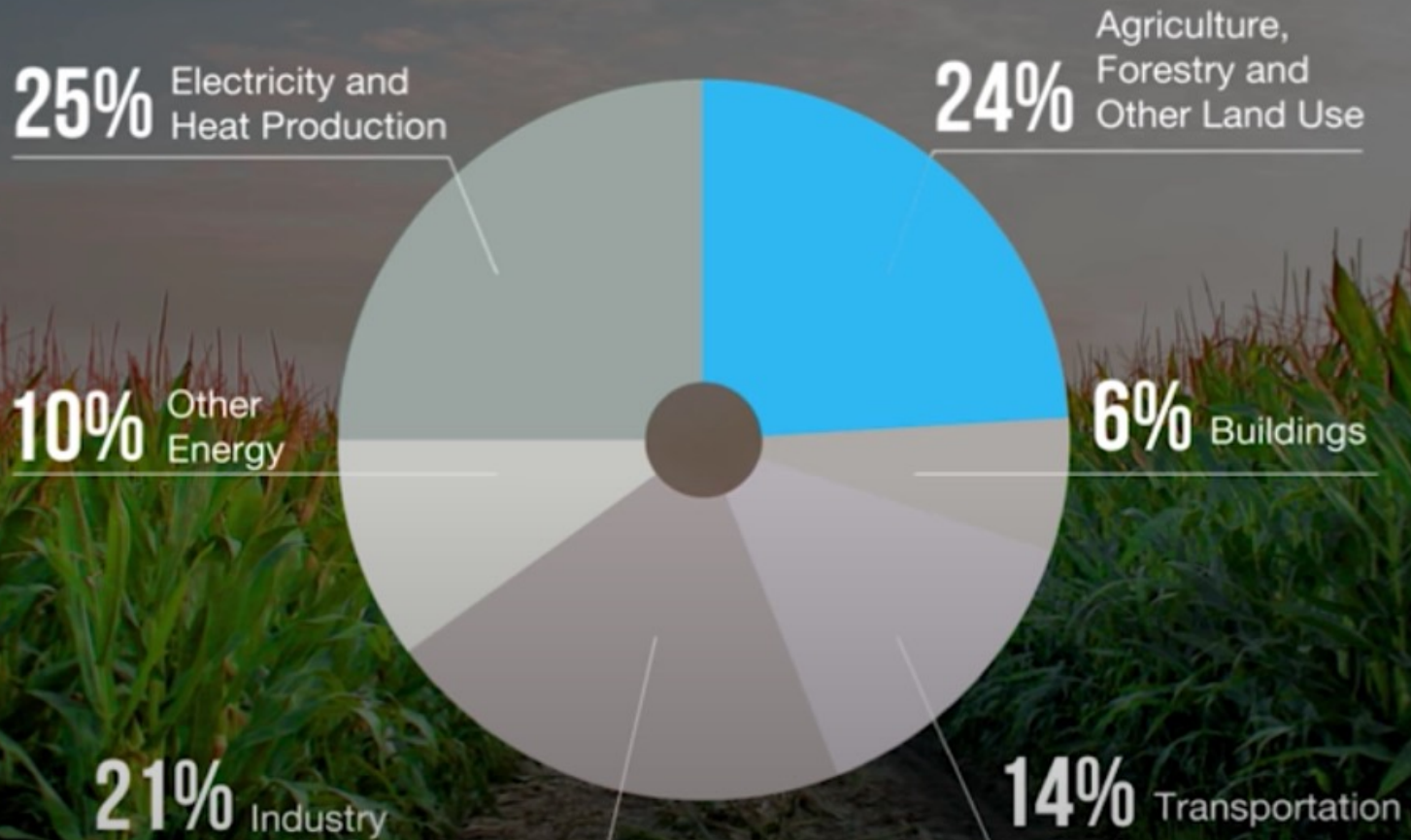
*"L'UOMO VIVE CON UN QUARTO DEL CIBO  
CHE MANGIA, GLI ALTRI TRE QUARTI FANNO  
VIVERE IL DOTTORE"*

# The nexus between international trade, food systems, malnutrition and climate change

Sharon Friel , Ashley Schram and Belinda Townsend

**Trade agreements are a major determinant of the operation of food systems. Here, we examine how different aspects of trade can constrain or enable governments' ability to implement food system-level actions aimed at enhancing nutrition and mitigating climate change. Concerning technical aspects, we focus on the potential impact of trade agreements on three major strategies for transforming food systems—namely the removal of market barriers for agricultural commodities, the protection of regulatory policy space and the revision of subsidies. Concerning non-technical aspects, we review the evidence on the political economy of trade to show that coherence between trade-policy goals and public-interest goals, such as nutrition and climate change, involves actors' interests, ideas, and formal and informal institutional processes at various levels. With international agreements to liberalize trade and investment being binding, and recommendations to address malnutrition and climate change being non-binding, there is potential for trade to hinder efforts against malnutrition and climate change. Tempering this will require a deeper understanding of the complex trade-food system--nutrition-climate nexus and a new regulatory framework consistent with such complexity, as well as strategic stakeholder engagement.**

# Global Greenhouse Gas Emissions by Economic Sector





# Is global dietary change an effective strategy to curb climate change?

James Bradfield <sup>1,2</sup> Helena Trigueiro,<sup>2</sup> Sumantra Ray <sup>2,3,4</sup>

It has been estimated that increased consumption of plant-based diets might lower greenhouse-gas emissions by up to 80%.<sup>9</sup> Unfortunately, simply advising

*bmjnph* 2020;0:1–2.

doi:10.1136/bmjnph-2020-000101



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SNACK NEWS

SNACK NEWS

**GLI ITALIANI BUTTANO PIÙ DI 30 KG DI  
CIBO ALL'ANNO: COSÌ LO SPRECO  
ALIMENTARE PUÒ TRAMUTARSI IN  
UN'OCCASIONE**

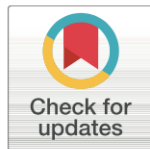
RESEARCH ARTICLE

# Rapid global phaseout of animal agriculture has the potential to stabilize greenhouse gas levels for 30 years and offset 68 percent of CO<sub>2</sub> emissions this century

Michael B. Eisen<sup>1\*</sup>, Patrick O. Brown<sup>2,3\*</sup>

**1** Department of Molecular and Cell Biology, Department of Integrative Biology, Howard Hughes Medical Institute, University of California, Berkeley, CA, United States of America, **2** Department of Biochemistry (Emeritus), Stanford University School of Medicine, Stanford, CA, United States of America, **3** Impossible Foods, Redwood City, CA, United States of America

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## Abstract

Animal agriculture contributes significantly to global warming through ongoing emissions of

**Quale sarebbe l'impatto sul clima di un cambiamento così radicale? A fare i calcoli uno studio pubblicato su PLOS Climate: eliminare gli allevamenti e ripristinare la vegetazione spontanea abbatterebbe del 68% le emissioni di gas serra**

Tropical Agriculture, COLOMBIA

**Received:** July 18, 2021

**Accepted:** November 29, 2021

**Published:** February 1, 2022

atmosphere as a 25 gigaton per year reduction in anthropogenic CO<sub>2</sub> emissions, providing half of the net emission reductions necessary to limit warming to 2°C. The magnitude and rapidity of these potential effects should place the reduction or elimination of animal agriculture at the forefront of strategies for averting disastrous climate change.



# CONSUMO DI CARNE E SOSTENIBILITA'

Salute&Benessere

Fai la Ricerca

Vai a ANSA.it

## Per salvare Pianeta proteine alternative e meno carne

World Economic Forum, con cambio dieta -5% morti e calo gas serra



Manuela Correra ROMA 03 gennaio 2019 18:40

Scrivi alla redazione Stampa



L'annuncio non mi interessa

Contenuto nascosto

Annuncio inappropriato

Annuncio visto più volte



**Clima: una dieta vegetariana riduce del 35-50% il consumo del suolo**



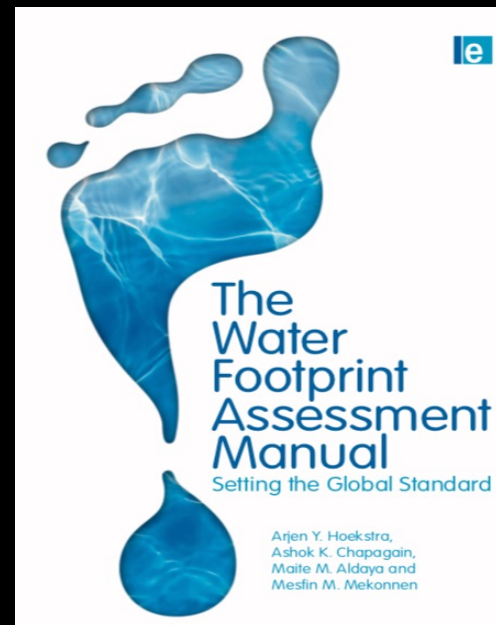
*Secondo uno studio americano, si riducono anche l'uso di fertilizzanti azotati e le emissioni di gas serra*



# Quanta acqua serve pe produrre un Kg di prodotto ?



- Mais.....900 litri
- Pasta.....1850 litri
- Pollo.....4000 litri
- Maiale....6000 litri
- Manzo....15.500 litri







Gli animali si nutrono,  
l'uomo mangia  
e solo  
l'uomo intelligente  
sa mangiare

*Jean Anthelme Brillat Savarin*





**IL POTERE DELLA BOCCA**

# IL POTERE DELLA BOCCA E' IMMENSO

## *Scegliendo cosa mettere in bocca:*

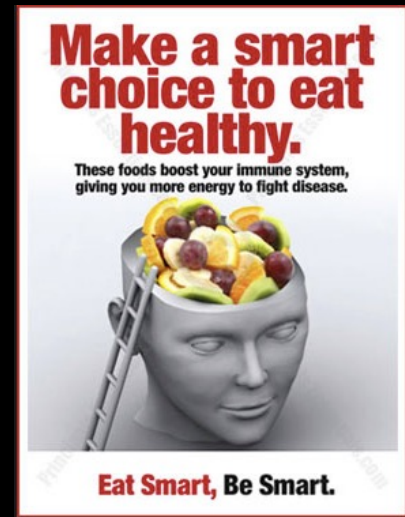
- Si mantiene o ripristina la salute e si favorisce la longevità sana
- Si riduce la spesa sanitaria e sociale e quindi l'entità della tassazione
- Si orienta il consumo e quindi la produzione, manipolazione e distribuzione del cibo su base planetaria.
- Si riduce drasticamente la sofferenza animale, l'inquinamento di aria, suolo e acque e il consumo dell'acqua e il riscaldamento globale
- Si limitano i costosi e inquinanti viaggi delle derrate alimentari nel mondo che fanno profitti consistenti solo per le multinazionali
- Si incentiva la produzione locale (filiera corta), stagionale e biologica favorendo l'economia regionale, un'equa distribuzione del profitto fra tutti i produttori del cibo e la salvaguardia della biodiversità



# Qual è la storia del cibo che sta nel mio piatto?



La Scelta del Cibo: **Mangiare consapevolmente**



Un percorso biologico e biografico con il cibo e la cucina in grado di modificare la salute individuale e il benessere sociale e ambientale



L'acqua scorre sotto il ponte....



.... o no?



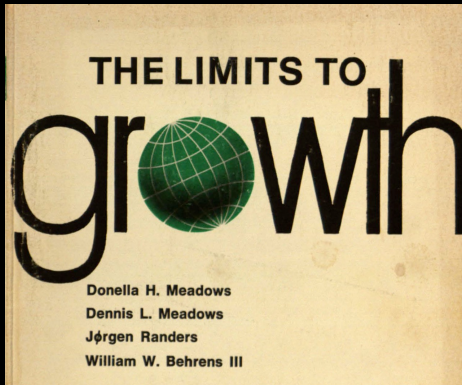
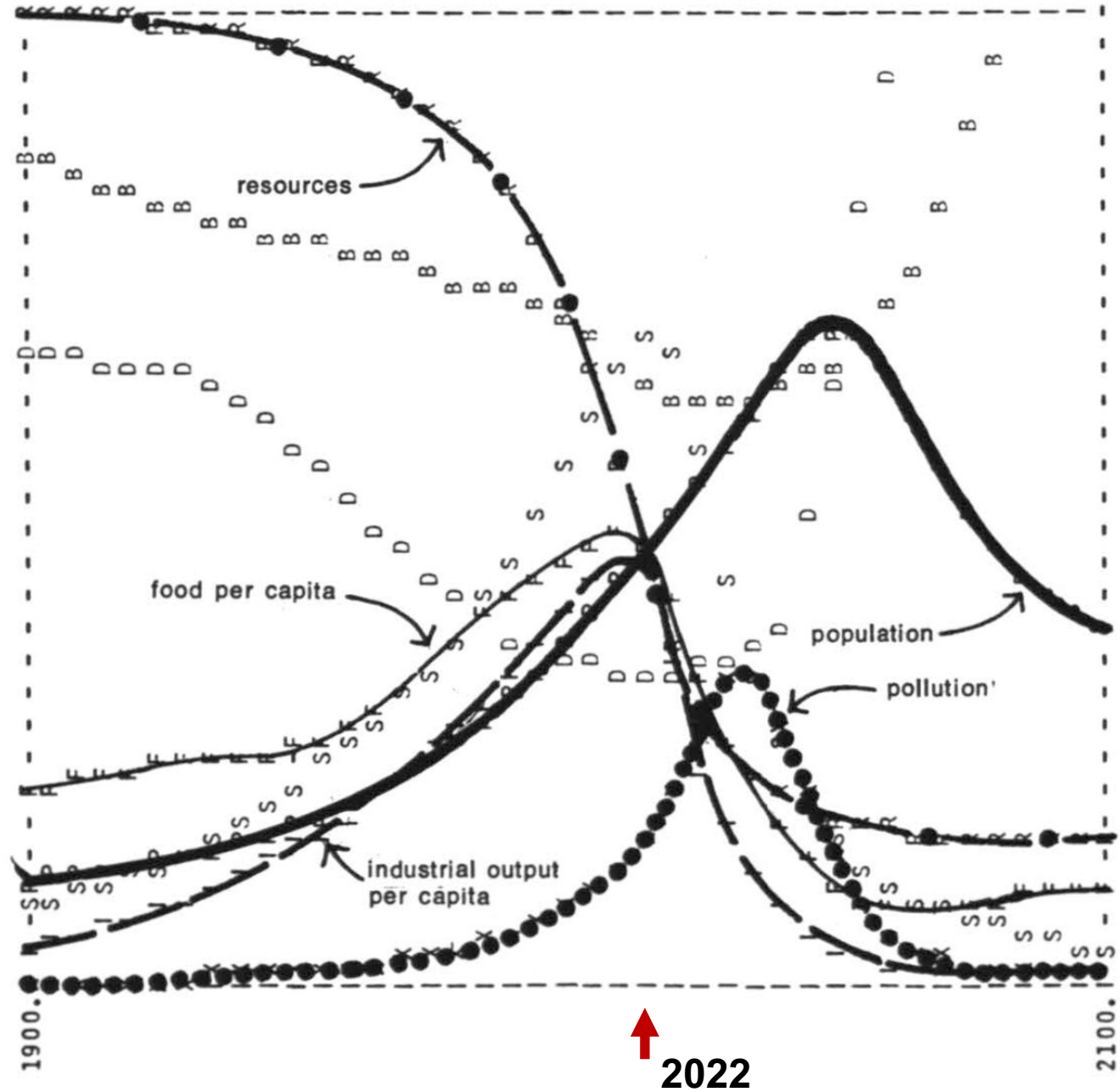


Figure 35 WORLD MODEL STANDARD RUN



TRA UN PO' SI POTRA'  
TORNARE A FARE  
TUTTO QUELLO CHE  
FACEVAMO PRIMA.

DI NUOVO?



La speranza ha due bellissimi figli: lo sdegno e il coraggio. Lo sdegno per la realtà delle cose; il coraggio per cambiarle.

Sant'Agostino.



# Sostituiamo il virus Covid-19 con il **Virus della Sobrietà!**

---



“One cannot think  
well, love well, sleep  
well, if one has not  
dined well.”

– VIRGINIA WOOLF



*“Non si può pensare bene, amare bene,  
dormire bene se non si è mangiato bene”*