Stefanos N. Kales MD, MPH, FACP, FACOEM Professor, Harvard Medical School & Harvard Chan School of Public Health



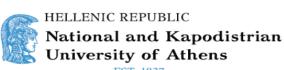
SCHOOL OF PUBLIC HEALTH



SUSTAINABILITY











- 1. OUTLINE- OVERVIEW
- 2. Sustainable Diet: Challenges/ Definition
- 3. Mediterranean Diet as Sustainable
- 4. Mediterranean Diet & Health
- 5. Hellenic Center for Health & Wellness





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The Lancet Commissions

Food in the Anthropocene: the EAT-Lancet Commission on Lancet 2019; 393: 447-92 healthy diets from sustainable food systems

World Population ~8 Billion, by 2050 expected ~10 Billion

Over 800 million people have insufficient food – roughly 10% of world population

"Many more consume low-quality diets that ... contribute to a substantial rise in the incidence of diet-related obesity and diet-related non-communicable diseases..."



The Lancet Commissions

"Sustainable food systems...reduce environmental degradation caused by food production...

Lancet 2019; 393: 447-92

"Therefore, sustainable food production for about 10 billion people should:

- "use no additional land, safeguard existing biodiversity"
- -reduce and manage water use,
- -"substantially reduce nitrogen/phosphorus pollution"
- "produce zero carbon dioxide emissions"
- "cause no further increase in methane and nitrous oxide emissions."



The Lancet Commissions

"Sustainable food systems"

"Achieving healthy diets from sustainable food systems"

- "substantial shifts towards healthy dietary patterns"
- "large reductions in food losses and waste"
- "major improvements in food production practices"

Lancet 2019; 393: 447-92

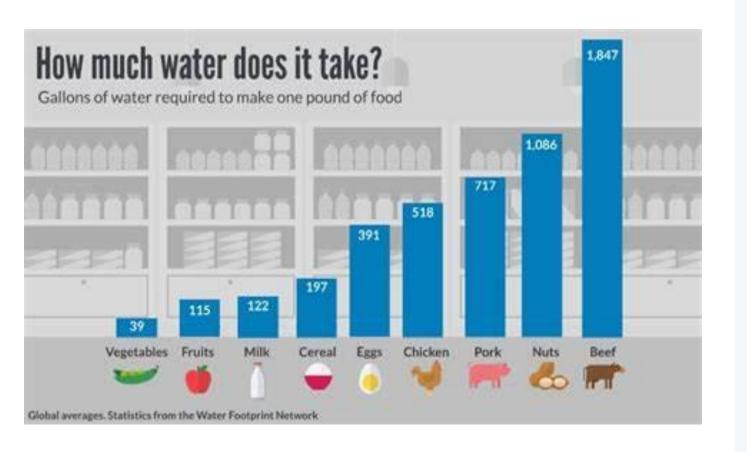


The Lancet Commissions

Lancet 2019; 393: 447-92

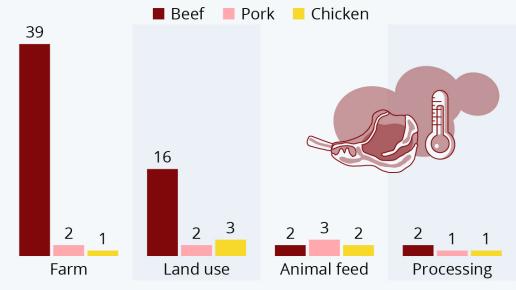
"increasing consumption of plant-based foods and substantially

reducing consumption of animal source foods."



Beef: It's What's Contributing to Climate Change

Greenhouse gas emissions from meat production (kilograms CO₂ equivalent per kilogram of product)



Data collected in 2018 Sources: Poore and Nemecek, Bloomberg









The Lancet Commissions

Lancet 2019; 393: 447-92

"increasing consumption of plant-based foods and substantially reducing consumption of animal source foods."





The Lancet Commissions

Lancet 2019; 393: 447-92

"increasing consumption of plant-based foods and substantially reducing consumption of animal source foods."

Greek Diet: "Χόρτα, Όσπρια και Μπόλικο Λάδι"



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The Lancet Commissions

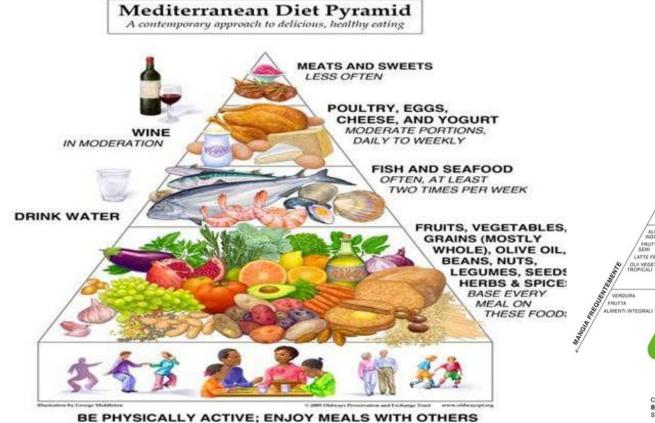
Sustainable Diet: Challenges/ Definition

Food in the Anthropocene: the EAT–*Lancet* Commission on Lancet 2019; 393: 447–92 healthy diets from sustainable food systems

"Healthy reference diet largely consists"

- "vegetables, fruits, whole grains, legumes, nuts, and unsaturated oils"
- "low to moderate amount of seafood and poultry"
- "no or a low quantity of red meat, processed meat, added sugar, refined grains, and starchy vegetables"

Mediterranean Diet as Sustainable





LA MIA SALUTE

CARNE PROCESSATA

POLLAME FORMAGGI

FRUTTA SECCA E SEMI

LATTE FERMENTATO

OLII VEGETALI NON

IL MIO IMPATTO SUL CLIMA

CARNE ROSSA

CARNE PROCESSATA

GLOBALE

PESCE

LATTE FERMENTATO

POLLAME

FRUTTA SECCA E SEMI

OLII VEGETALI NON TROPICALI

DOLCI E PRODOTTI DA FORNO

ALIMENTI INTEGRALI

ALIMENTI A BASSO NDICE GLICEMICO

GRASSI ANIMALI E OLII TROPICALI

Greek Diet: "Χόρτα, Όσπρια και Μπόλικο Λάδι"



Cretans were the first to cultivate the Olive Tree for Olive Oil

During the Minoan Civilization cultivated the olive tree around 3500 BC.

Minoans on Crete perfected the process of olive production

The first to export olive oil to both Africa and the Middle East.











CALIMERA



(alòs irtate

Benvenuti Καλώς ήρθατε Welcome Bienvenus







Frontiers in Nutrition

TYPE Opinion
PUBLISHED 23 November 2022
DOI 10.3389/fnut.2022.1058402



Olive oil, Greek Mediterranean diet heritage and honoring the past to secure our future: Priorities for research and education



¹Hellenic Health Foundation, Athens, Greece, ²Academy of Athens, Athens, Greece

The Nobel prize winning Greek poet Odysseas Elytis wrote, "If Greece is completely destroyed, what will remain is an olive tree, a vine and a boat; this is enough to begin again" (1). Indeed, some plants, like the olive tree, and the grapevines, have evidently been in Greece forever.











The Rockefeller Report

".....olives, cereal grains, pulses, fruit, wild greens and herbs... and fish

consist the basic Cretan foods ... Olives and olive oil contributed heavily

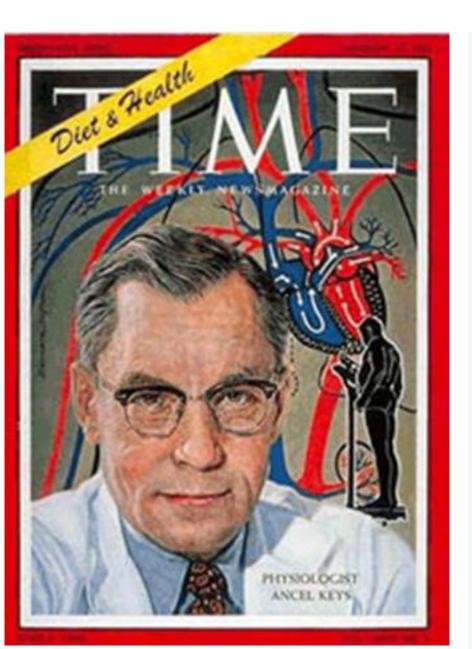
to the energy intake ... food seemed literally to be 'swimming' in

Allbaugh LG. Crete: a case study of an underdeveloped area. Princeton NJ: Princeton University Press, 1953

[slide credit Prof. Antonia Trichopoulou HHF]



Ancel Keys: Seven Countries Study





Ancel Keys: Seven Countries Study

1957: Field surveys begin in southern Italy & Crete

1958: Dalmatian coast of Croatia (former Yugoslavia).



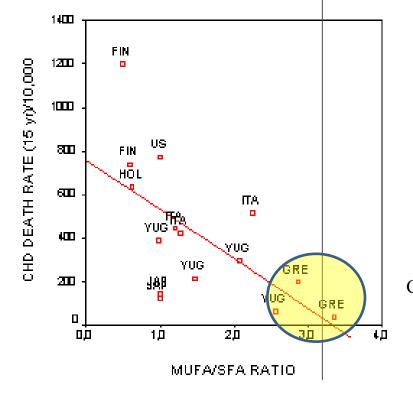




Life expectancy / Disease Rates in U.S.A, Greece and Japan, In 1960's

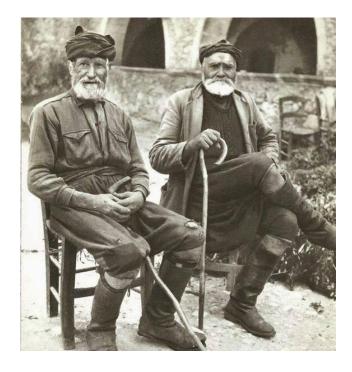


Keys et al Am J Epidemiol 1986;124:903



		U.S.	Greece	Japan
Life expectancy at age 45 in years	(M)	27	31	27
_	(F)	33	34	32
Coronary Heart Disease	(M)	189	(33)	34
	(F)	54	14	21
Cerebrovascular Diseases	(M)	30	26	102
	(F)	24	23	57
Breast Cancer	(F)	22	8	4
Stomach Cancer	(M)	6	10	48
	(F)	3	6	26
Colon, Rectal Cancer	(M)	11	3	5
	(F)	10	3	5
Total Cancer	(M)	102	(83)	98
	(F)	87	61	77

Willet W. Science 1994



Review Article Mediterranean diet and health

Ancel Keys: "Seven Countries Study"

"The concept of the Mediterranean diet dates back to the 1960s', when Ancel Keys coined the term following the results of an epidemiological study, which demonstrated that the populations (Italy and Greece) that overlooked the Mediterranean Sea had a reduced incidence of cardiovascular disease and cancer in comparison to the other populations."

Sofi et al. BioFactors, 39(4):335-342, 2013



UNESCO: "First publicized in 1975 by the American biologist Ancel Keys and his wife, chemist Margaret Keys, the Mediterranean Diet as a unique lifestyle, determined by the climate and by the Mediterranean area, is also manifested through related festivals and celebrations."

Letter to the Editor

The Seven Countries Study in Crete: olive oil, Mediterranean diet or fasting?

"Professor Christos Aravanis... responsible for...the Seven Countries Study in Greece... confirmed that, in the 1960s, 60% of the study participants were fasting during the 40 days of Lent, and strictly followed all fasting periods of the church..."



ORTHODOX CHRISTIAN FASTING

Abstain from Meat & Dairy/ Allow Plants, Shellfish, Snails

>/=180 days per year

Most Wednesdays and Fridays + Four Fast Periods:

Nativity: Nov. 15 - Dec. 24

Great Lent & Holy Week (Lead to Easter (Pascha))

Apostles' (Peter & Paul): June 11 – 28

Dormition of the Theotokos or Virgin: Aug. 1 -14

http://orthodoxinfo.com/praxis/father-seraphim-rose-fasting-rules.aspx

<u>Liturgics - Fasting & Fast-Free Seasons of the Church - Orthodox Church in America (oca.org)</u>





Olive oil, Greek Mediterranean diet heritage and honoring the past to secure our future: Priorities for research and education

Antonia Trichopoulou^{1,2}*

¹Hellenic Health Foundation, Athens, Greece, ²Academy of Athens, Athens, Greece





TYPE Opinion
PUBLISHED 23 November 2022
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"The cooking term ladera, originates from the word ladi, Greek for oil, and generally describes vegetables cooked in plenty of olive oil, onions, garlic, tomatoes and various herbs.... the cooking practice of Greek cuisine called tsigarisma (sautéing)—basically to "sauté." Onions and garlic would first be wilted...in a frying pan with a few tablespoons of hot olive oil... Subsequently, vegetables, grated tomatoes, various aromatic herbs, and a small amount of water is then added and the food is essentially left to cook on its own, traditionally over a low flame."



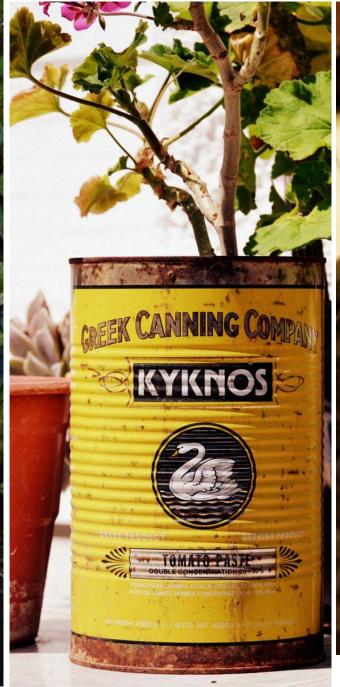




Sustainability = Βιωσιμότητα/Αειφορία ή «Δεν πετάμε τα πράματα, είναι αμαρτία»











Physical activity- an essential practice through chores and walking many kilometers daily

They drank local wine at most meals in moderation, and they socialized with friends

An afternoon siesta was the norm





Mt. Athos: the Monks Eat NO Meat
Plant-based foods and Shellfish, Wine
Feast Days- eat Fish and Vegetables
Tahini when Olive Oil restricted
Eat twice a day in silence

"the only sound is a monk reading from sacred texts."





https://www.greece-is.com/mt-athos-monastic-diet-food-soul/







https://www.greece-is.com/mt-athos-monastic-diet-food-soul/

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"Mediterranean diet"

- 1. Eating habits historically followed to varying degrees in all countries bordering the Mediterranean Sea (Olive Trees)
- 2.Most closely associated with the traditional diet and essential foods of Greece and Southern Italy during 1950-1960s. (Crete = Prototype)
- 3. High intake of extra virgin olive oil, fruits, vegetables, other plant proteins and fibers (nuts and legumes), unrefined whole grains, and fish;
- 4. Moderate intake of dairy, eggs and lean meats; moderate alcohol intake with meals (usually wine);
- 5. Low red meat and sweet consumption.

Today's #1 Diet is based on Greek Philosophic & Cultural Traditions: Rich in Olive Oil, fruits, vegetables, fish, wine and "all things in moderation" (Μέτρον άριστον)

Cardiovascular Disease Reduced by 20-45%

Cancer Reduced by 20-30%

Depression Reduced by 15-30%

Decreased risk of:

- Metabolic syndrome
- Diabetes
- Hypertension
- Cognitive Decline

Improved Sleep & Sexual Function
Increased longevity



Today's #1 Diet is based on Greek Philosophic & Cultural Traditions: Rich in Olive Oil, fruits, vegetables, fish, wine and "all things in moderation"

(Μέτρον άριστον)



BEST DIET OVERALL

2018, 2019, 2020, 2021, 2022, 2023



Best Diet	Best Diets for	Best Heart	Easiest Diet	Best Plant-	Best Diabetes Diet
Overall	Healthy Eating	Healthy Diet	to Follow	based Diet	
Mediterranean	Mediterranean	Mediterranean	Mediterranean	Mediterranean	Mediterranean
Diet #1	Diet #1	Diet #1	Diet #1	Diet #1	Diet #1





2020 - 2025

Scientific Report of the 2015 Dietary Guidelines Advisory Committee

Advisory Report to the Secretary of Health and Human Services and the Secretary of Agriculture

Recognize and Recommend the Mediterranean Diet as a healthy option for Americans

University of Massachusetts Dining: Led by Ken Toong – a major Olive Oil & Greek Diet Proponent

Princeton Review named UMASS # 1 best campus food for five consecutive years (2017-2022)

Ο κ. Ken Toong EXEI THN ΕΥΘΥΝΗ ΓΙΑ 50.000 ΓΕΥΜΑΤΑ ΤΗΝ ΗΜΕΡΑ ! " Χρησιμοποιεί Ελληνικό λάδι, όσπρια AGRINO, Λαβράκι Κεφαλλονίας, και πολλά άλλα



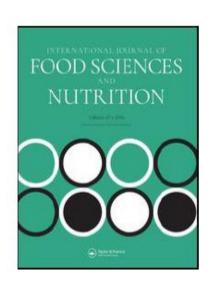


Healthy Diets from Sustainable Food Systems: The Mediterranean Diet

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Mediterranean diet – promotion and dissemination of healthy eating: proceedings of an exploratory seminar at the Radcliffe institute for advanced study

Mercedes Sotos-Prieto, Daniele Del Rio, Greg Drescher, Ramon Estruch, Chavanne Hanson, Timothy Harlan, Frank B. Hu, Maria Loi, James P. McClung, Angelo Mojica, Daniela Puglielli, Ken Toong, Fania Yangarber & Stefanos N. Kales

September 2019, convened thought leaders at an exploratory seminar entitled: "Mediterranean Diet: Promotion and Dissemination of Healthy Eating".

Hosted by the Radcliffe Institute for Advanced Studies at Harvard University.

The multi-disciplinary faculty discussed best practices for translating traditional Mediterranean lifestyle principles to modern society.

THE ART & SCIENCE OF OLIVE OIL: NUTRITION, MEDICINE AND PLANETARY HEALTH

Securing the Future of a World Cultural Heritage,

Casina Pio IV, The Vatican, May 3-4, 2022



The Hellenic Center for Excellence in Health & Wellness in Collaboration with GRECOTEL announces its goals and first steps







www.mediterraneanhealth.org



The Hellenic Center of Excellence in Health & Wellness

- overall goal of preventing chronic disease and promoting environmental sustainability by promoting healthier diets and lifestyles.

-promotes activities inspired by the traditional Greek Diet and Lifestyle



ATTICA

CAPE SOUNIO, SOUNIO
Boutique Resort

PALLAS ATHENA, ATHENS

VOULIAGMENI SUITES

NEW: GRECOTEL ACROPOLIS

Boutique Resort

CORFU

World of Kommeno CORFU IMPERIAL, KOMMENO Luxury Beach Resort

THE VILLAS OF KOMMENO PENINSULA

LUX ME DAPHNILA BAY, DASSIA Lux Me Resort

EVA PALACE, KOMMENO Luxury Beach Resort

DANILIA VILLAGE

NEW: COSTA BOTANICA, ACHARAVI THE COUNTRY HOUSE THE SUMMER HOUSES

RHODES

LUX ME DAMA DAMA, FALIRAKI Lux Me Resort **MYKONOS**

MYKONOS BLU, PSAROU Boutique Resort

MYKONOS BLU VILLAS, PSAROU Boutique Resort

MYKONOS LOLITA, AG. SOSTIS Boutique Resort

HALKIDIKI

MARGO BAY & CLUB TURQUOISE Luxury Beach Resort

ALEXANDROUPOLIS ASTIR*EGNATIA

LARISSA LARISSA IMPERIAL

KOS

LUX ME KOS IMPERIAL, PSALIDI KOS TOWN Lux Me Resort

NEW CACA DADADIO

NEW: CASA PARADISO, MARMARI All In Lifestyle Resort PELOPONNESE

RIVIERA OLYMPIA, KYLLINI MANDOLA ROSA

Boutique Resort

LA RIVIERA Luxury Beach Resort

OLYMPIA OASIS Lux Me Resort

ILIA PALMS All In Lifestyle Resort

CASA MARRON

FILOXENIA KALAMATA

Non-Profit USA & Strategic Partnership with Grecotel



CRETE

AMIRANDES, HERAKLION

Boutique Resort

CRETA PALACE, RETHYMNO Luxury Beach Resort

LUX ME WHITE PALACE, RETHYMNO Luxury Beach Resort

CARAMEL, RETHYMNO Boutique Resort

MARINE PALACE & AQUA PARK, PANORMO All In Lifestyle Resort

NEW: CASA MARINA & AQUA PARK

All In Lifestyle Resort

MELI PALACE, SISSI LASSITHI

PLAZA BEACH HOUSE, RETHYMNO

GRAND LEONIKI RESIDENCE, RETHYMNO

VILLA OLIVA, RETHYMNO

All In Lifestyle Resort

Nikos Daskalantonakis (founder of GRECOTEL) realized "that blue skies and sparkling seas were only enough to attract visitors' interest."





HOTELS & RESORTS

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In collaboration with the Hellenic Center of

Excellence for Health & Wellness

May 5-9, 2022









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GREEK NATIONAL TOURISM ORGANISATION

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Οι Κρητικοί ξέρουν από καλή ζωή

Ανακαλύπτοντας την ουσία του κρητικού ευ ζην με αφορμή την ίδρυση του Κέντρου Αριστείας για την Υγεία και την Ευεξία, που εγκαινίασε τη δράση του στο Ρέθυμνο.

Κείμενο: Ισαβέλλα Ζαμπετάκη Φωτογραφίες: Γιάννης Χατζηιωάννου

Από το Χάρβαρντ στην Κρήτη!







ΣΥΝΕΝΤΕΥΞΗ

ΙΣΑΒΕΛΛΑ ΖΑΜΠΕΤΑ

όταν ο δρ Γουίλετ δοκίμασε κρητικά χόρτ α

Ο ΔΡ ΓΟΥΟΛΤΕΡ ΓΟΥΙΛΕΤ ΕΙΝΑΙ Ο ΦΙΛΕΛΛΗΝΑΣ ΔΙΑΤΡΟΦΟΛΟΓΟΣ που πριν από 30 χρόνια τόλμπος να αμφισβπτήσει την επίσημη διατροφική περαμιδα του Υπουργείου Γεωργίας των Ηνωμένων Πολιτειών και ο πιο συχνά αναφερόμενος επιστήμονας υγείας παγκοσμίως. Μετά από τέσσερις δεκαετίες έρευνας, είναι ενθέρμος υποστηρικτής της μεσογειακής διατροφής - το «Κ» τον συνάντησε στην Κρήτη, όπου συμμετέχε στην ίδρυση του Κέντρον Δριστείας για την Υγεία και την Ενεξία. Το αγαπημένο φαγητή του δρα Γουζετ κατά την παραμονή του στο νησί πίπα ντα άγρα χόρτα, τα οπό και τον εντυποσίασαν με την ποικιλία και τη γευστικότητά τους. «Σε κάθε γεύμα σας υπάρχει τουλάχιστον ένα -αν όχι περισσότερα - χορταρικά», μας είτε. «Αυτό δεν είναι κάτι που βλέπουμε στις ΗΠΑ. Ας μην ξεχνάμε ότι το παραδοσιακό γεύμα σε κάποιες πολιτείες της



GREECE IS CRETE

Cretans Know a Thing or Two About Good Living

Discovering the essence of Cretan well-being, in the context of the establishment of the Hellenic Center of Excellence for Health and Wellness in Rethymno.

By Isabella Zambetaki | June 28th, 2022

Ο ΚΑΘΗΓΗΤΗΣ ΙΑΤΡΙΚΗΣ - ΔΗΜΟΣΙΑΣ ΥΓΕΙΑΣ ΠΑΝΕΠΙΣΤΗΜΙΟΥ ΧΑΡΒΑΝΤ ΑΠΟΚΛΕΙΣΤΙΚΑ ΣΤΑ «P.N.» PEOYMNO

Στέφανος Κάλης: Η Κρήτη και η διατροφή της αποτελούν το ιδανικό περιβάλλον και το μυστικό για υγεία και μακροζωία

Hellenic Center for Excellence in Health & Wellness



Continuing Professional Education

Wellness/Medical Tourism

"Farm Store"

Olives & Olive Oil Education & Research

Sustainability Education & Research





Cretan Lifestyle Mediterranean Tradition & Modern Applications

Experiential Conference
November 7-11, 2022, Rethymno, Crete

GRECOTEL

GRECOTEL

HOTELS A RESONTS







Co-Organized by the Region of Crete with the World Olive Center for Health (WOC), in collaboration with the Hellenic Center of Excellence for Health & Wellness





















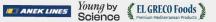


























Proud to Welcome over 80 Participants & Speakers 10 Countries & 4 Continents & over 100 Guests Total

















Pre-existing Infrastructure includes the Experiential Organic Farm and Restaurant,

AGRECO FARMS

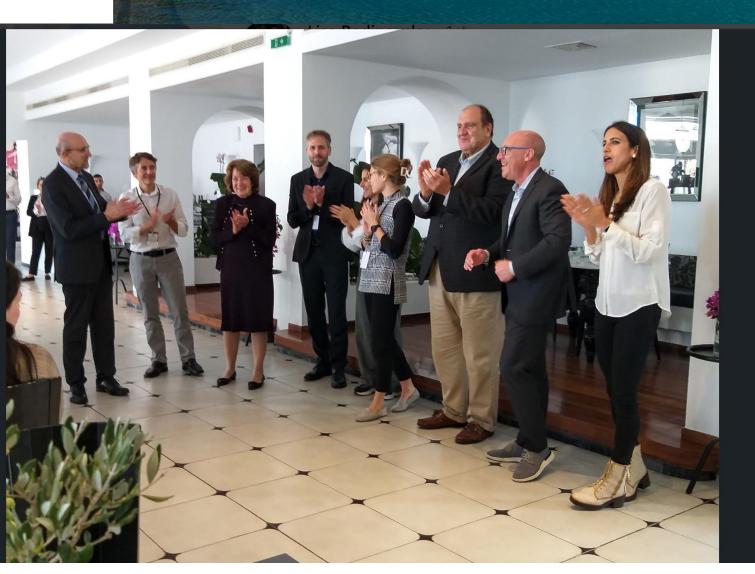




2023 Proud to Welcome over 130 Participants & Speakers from more than 12 Countries & 4 Continents & over 150 Guests Total



Cretan Lifestyle: Mediterranean Tradition & Modern Applications





Lisa Radinovsky • 1st Freelance Writer, Editor, and Online Advertiser Sp...

Congratulations to the winners of the Young Investigators & Professionals presentation competition, pictured here (3 in the center) with the distinguished judges and organizers, at the Cretan Lifestyle: Mediterranean Tradition & Modern Applications conference at Grecotel in Rethymno, Crete last week! The winners were 1st: Dr. Clemens Wittenbecher, 2nd: Ms. Ioanna Yiannakou, and 3rd: Dr. Maria Soledad Hershey.



1 comment · 4 reposts









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Cretan Lifestyle: Mediterranean Tradition & Modern Applications

The Conference will couple Elite educational offerings with

Hands-On Immersion

Visitors will see, hear, taste and live unique and unforgettable experiences in Crete inspired by the land, people and their history.



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SAVE THE DATE

November 13-18, 2023, Rethymno, Crete

2nd Mediterranean Diet & Lifestyle Conference with US/International Speaker and Immersion Experiences

www.mediterraneanhealth.org





Stefanos N. Kales MD, MPH

Professor, Harvard Medical School & Harvard Chan School of Public Health















