

Corruption of Science by the American Cancer Society

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Doctors for Disaster Preparedness

Tucson, AZ

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UNIVERSITY OF CALIFORNIA, BERKELEY

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SANTA BARBARA • SANTA CRUZ

April 9, 1973

CANCER RESEARCH LABORATORY
230 WARREN HALL
BERKELEY, CALIFORNIA 94720

Dr. James E. Enstrom
Lawrence Radiation Laboratory
Berkeley Campus

Dear Dr. Enstrom:

I am pleased to inform you that the Berkeley Campus Institutional Research Grant Committee has approved your request for support for the project "Proposal to study cancer among Mormons" in the amount of \$2,745.

Please note that the award is \$255 less than the requested \$3,000 due to limitations on types of expenditures of the American Cancer Society. Items



OFFICE OF THE CHANCELLOR
LOS ANGELES, CALIFORNIA 90024

October 11, 1973

Dr. James Enstrom
Division of Epidemiology
University of California
Los Angeles, California 90024

Dear Dr. Enstrom:

It is my pleasure to inform you that the award committee has selected you for a Celeste Durand Rogers Fellowship in Cancer Research. The award is \$9000 in stipend support and \$1000 to your sponsor for expenses associated with the proposed program. The fellowship can be activated at any time prior to March 1, 1974.

The award will be initiated when your department submits an award transmittal form to the Fellowship Office of the Graduate Division.

I want to congratulate you on this award. Applications were received from a large number of very highly qualified candidates. We are gratified to be able to provide support from this program made possible by private giving to UCLA. You are among the first group of recipients of this award which we hope will become widely recognized for supporting high level research activities in cancer related programs.

We would appreciate receiving a summary of your activities at the end of the year. Send the summaries to Albert A. Barber, Assistant Vice Chancellor-Research.

Sincerely,

A handwritten signature in black ink that reads "Charles E. Young".

Charles E. Young
Chancellor

The Washington Post

The Washington Post Co.

MONDAY, NOVEMBER 18, 1974

Phone (202) 223-60

Study Shows Low Mormon Cancer Rate

By Stuart Auerbach
Washington Post Staff Writer

LOS ANGELES — Mormons neither drink nor smoke, and they stress clean living. They also die of cancer at half the rate of other Californians.

That is not surprising, since many cancers—especially cancer of the lungs, one of the biggest killers—have been linked to tobacco and alcohol.

But Dr. James E. Enstrom of the school of public health at the University of California at Los Angeles has found that Mormons in Utah and California have strikingly lower cancer death rates in sites that have never been associated with tobacco, alcohol or diet. These include cancer of the lymphatic system, such as Hodgkin's disease, breast cancer, uterine cancer, cancers of the bladder and kidneys and cancer of the pancreas.

Lower Cancer Toll Is Found For Mormons in Calif. Study

MORMONS, From A1

lower—depending upon the site—than the cancer death rate for the entire state.

These findings lend increasing weight to arguments that lifestyle—as well as smoking, drinking and dietary habits—plays an important but still unknown role in determining whether a person will die of cancer.

Both the Mormons and the Seventh Day Adventists place great emphasis on good health habits. They both stress eating a well balanced diet, including the use of unrefined grains and fresh fruits and vegetables. Most Seventh Day Adventists are vegetarians, while Mormons practice moderation in the eating of meat. Mormons try to get a good deal of exercise, and few of them are overweight.

Mormons also emphasize strong family life, and Dr. James O. Mason, a physician who is commissioner of health service for the Mormon church headquarters in

aren't sure what causes the difference in death rates between Mormons and Seventh Day Adventists and the rest of the country. But Dr. Marvin Schneiderman of the National Cancer Institute in Bethesda said the lower death rates "are not normal."

The Mormon church, formally known as the Church of Jesus Christ of Latter-Day Saints, has about 2.2 million members in the United States. Most of them are in Utah, where they make up 73 per cent of the state's population. There are 400,000 Mormons in California.

Enstrom became interested in studying Mormons when he noticed that the cancer death rate in Utah is the lowest of any state in the nation—about 75 per cent of the national cancer death rate.

He found the differences between Mormons and the rest of the country even more striking when he stud-

death rates were half of those for the California General population, and that proportion continues for sites not usually associated with tobacco or alcohol.

Enstrom based his conclusion on a study of the 800 Mormon cancer deaths in Utah County over the past 20 years, 1,200 Mormon cancer deaths for the state of Utah in one year and 600 cancer deaths among California Mormons in the past two years.

Besides their ban on the use of tobacco and alcohol, their low consumption of coffee, tea and stimulant drugs and their moderate dietary habits, Enstrom thinks that the Mormons' emphasis on exercise enough sleep and keeping thin contributes to their low cancer death rate.

But Mason, Mormon health commissioner, believes there may be something spiritual involved. "The church teaches that the

Enstrom Active California Mormon Health Study

Healthy Lifestyle Hypothesis:

Mormon Health Code “The Word of Wisdom” [No Tobacco, No Alcohol, Strong Family, Education, Religious Activity] is associated with low death rates from cancer and all causes

Enstrom *Cancer* 1975 “Cancer Mortality Among Mormons”

Enstrom *JNCI* 1989 “Health practices and cancer mortality among active California Mormons”

Enstrom and Breslow *Prev Med* 2008 “Lifestyle and reduced mortality among active California Mormons, 1980–2004”

Made possible with 1973-1992 ACS Funding and Cooperation

1980 Active California Mormon Males

1980-2004 Standardized Mortality Ratios

Optimum Mormons: Four 1980 lifestyle characteristics: never smoked cigarettes; 12+ years of education; married; attend church at least weekly.

Standardized Mortality Ratio (SMR) Relative to Concurrent US White Males
SMRs Show Similar Patterns for All Causes of Death and All Cancer

<u>Enstrom & Breslow 2008</u> Table 1	All Deaths/Subjects	SMR (95% CI)
Ages 25–99 at entry		
Optimum Mormons	872/3340	0.45 (0.42–0.48)
Optimum Mormons + Moderate BMI & Reg Phys Act & Proper Sleep	558/2337	0.40 (0.36–0.44)
Ages 25–64 at entry		
Optimum Mormons	543/2951	0.36 (0.32–0.41)
Optimum Mormons + Moderate BMI & Reg Phys Act & Proper Sleep	341/2070	0.32 (0.28–0.37)

1980 Active California Mormon Females 1980-2004 Standardized Mortality Ratios

Optimum Mormons: Four 1980 lifestyle characteristics: never smoked cigarettes; 12+ years of education; married; attend church at least weekly.

Standardized Mortality Ratio (SMR) Relative to Concurrent US White Females
SMRs Show Similar Patterns for All Causes of Death and All Cancer

<u>Enstrom & Breslow 2008</u> Table 1	All Deaths/Subjects	SMR (95% CI)
Ages 25–99 at entry		
Optimum Mormons	777/3811	0.55 (0.51–0.59)
Optimum Mormons + Moderate BMI & Reg Phys Act & Proper Sleep	402/2187	0.47 (0.42–0.53)
Ages 25–64 at entry		
Optimum Mormons	601/3950	0.52 (0.46–0.58)
Optimum Mormons + Moderate BMI & Reg Phys Act & Proper Sleep	243/1974	0.41 (0.34–0.49)

US White Males

1987 National Health Interview Cancer Survey

1988-1997 Standardized Mortality Ratios

Four 1987 lifestyle characteristics: Never=never smoked cigarettes;
 12+ Years=12+ years of education; Married=married;
 Weekly=attend church at least weekly.

Standardized Mortality Ratio (SMR) Relative to Concurrent US White Males

<u>Enstrom & Breslow 2008 Table 2</u>	Deaths/Subjects	SMR (95% CI)
Ages 25–99 at entry		
Entire Cohort	982/6664	0.90 (0.85–0.96)
Never Smoked Cigarettes	255/2280	0.72 (0.63–0.83)
Never & Weekly	93/838	0.60 (0.48-0.74)
Never & Weekly & Married	61/654	0.51 (0.40-0.66)
Never & Weekly & Married & 12+ Years	36/557	0.47 (0.33-0.64)

US White Females

1987 National Health Interview Cancer Survey

1988-1997 Standardized Mortality Ratios

Four 1987 lifestyle characteristics: Never=never smoked cigarettes;
 12+ Years=12+ years of education; Married=married;
 Weekly=attend church at least weekly.

Standardized Mortality Ratio (SMR) Relative to Concurrent US White Females

<u>Enstrom & Breslow 2008</u> Table 2	Deaths/Subjects	SMR (95% CI)
Ages 25–99 at entry		
Entire Cohort	1195/9168	0.83 (0.79–0.88)
Never Smoked Cigarettes	686/4815	0.70 (0.63–0.79)
Never & Weekly	344/2425	0.63 (0.55-0.72)
Never & Weekly & Married	84/1419	0.52 (0.42-0.66)
Never & Weekly & Married & 12+ Years	41/1169	0.38 (0.28-0.52)

Rather than fully exploring how healthy lifestyles can prevent cancer, ACS has focused on banning tobacco smoking and exposure to passive smoking (environmental tobacco smoke or secondhand smoke)

ACS Supported the 1993 EPA Report Claim that Passive Smoking Causes 3,000 US Lung Cancer Deaths Per Year

Respiratory Health Effects of Passive Smoking |
Indoor Air Quality (IAQ) | US EPA December 1992

The report concludes that exposure to environmental tobacco smoke (ETS) — commonly known as secondhand smoke — is responsible for approximately 3,000 lung cancer deaths each year in nonsmoking adults

Gio B. Gori and John C. Luik, Passive Smoke: The EPA's Betrayal of Science and Policy, The Fraser Institute 1999

EPA succumbed to political pressure from anti-tobacco lobby

Frustration in the campaign against tobacco, whose strategists came to realize that this right could be restricted forcibly only if it could be shown that passive exposure to environmental tobacco smoke (ETS) represents an involuntary risk to non-smokers. Thus, a major effort in this direction began with a call-to-arms in the 1979 Surgeon General's report on smoking, followed by substantial offers of research funds from agencies under the Surgeon General and the Public Health Service, and from allied interests of the American Cancer Society, the American Lung Association, the American Heart Association, and other advocacy groups.

James E. Enstrom and Geoffrey C. Kabat

“Environmental tobacco smoke and tobacco related mortality in a prospective study of Californians, 1960-98”

May 17, 2003 *British Medical Journal* doi: [10.1136/bmj.326.7398.1057](https://doi.org/10.1136/bmj.326.7398.1057)

Study was made possible because of my independent access to 1959 ACS California Cancer Prevention Study (CA CSP I) data

Conclusions The [ACS CA CPS I] results do not support a causal relation between environmental tobacco smoke and tobacco related mortality, although they do not rule out a small effect. The association between exposure to environmental tobacco smoke and coronary heart disease and lung cancer may be considerably weaker than generally believed.

James E. Enstrom

**“Defending Legitimate Epidemiologic Research:
Combating Lysenko Pseudoscience”** (28 pages)

October 10, 2007 *Epidemiologic Perspectives & Innovations*

“This analysis presents a detailed defense of my epidemiologic research in the May 17, 2003 British Medical Journal that found no significant relationship between environmental tobacco smoke (ETS) and tobacco-related mortality. In order to defend the honesty and scientific integrity of my research, I have identified and addressed in a detailed manner several unethical and erroneous attacks on this research. . . .

Finally, I compare many aspects of ETS epidemiology in the U.S. with pseudoscience in the Soviet Union during the period of Trofim Denisovich Lysenko. Overall, this paper is intended to defend legitimate research against illegitimate criticism by those who have attempted to suppress and discredit it because it does not support their ideological and political agendas.”

Current ACS Website

“Secondhand smoke causes cancer

SHS causes lung cancer, even in people who have never smoked.

Secondhand smoke causes other diseases and death

Exposure to secondhand smoke increases the risk of developing and dying from heart disease.”

ACS Cancer Action Network Website

“SMOKE FREE Campaign --- And the science clearly shows that secondhand smoke causes cancer, even for those who have never smoked a cigarette.”

ACS and ACS CAN Websites Contain NO Mention of Greatly Reduced Cancer and Total Death Rates Among Those With Healthy Lifestyles Involving Education, Marriage, Religiosity

**1982 ACS Cancer Prevention Study (CPS II) Data
Has Helped EPA Promote PM2.5 Premature Deaths:
1997 Establishment of PM2.5 NAAQS and 2012 Tightening**

1995 AJRCCM Article by Pope Thun

Claims of PM2.5 Deaths in CPS II led to 1997 PM2.5 NAAQS

2000 HEI Reanalysis Report by Krewski Jerrett

Ignored NO PM2.5 Deaths Findings Based on Best PM2.5 Data

2002 JAMA Article by Pope Thun

by Pope Thun Ignored Criticism of Pope 1995 and HEI 2000

2009 HEI Research Report 140 by Krewski Jerrett Pope Thun

Flawed PM2.5 Deaths Claims Led to Lower 2012 PM2.5 NAAQS

<https://www.cancer.org/research/we-conduct-cancer-research.html>

We Conduct Actionable Cancer Research

Our Proudest Achievements

Confirmed Link Between Smoking and Lung Cancer

Informed Air Pollution Policies

Findings from CPS-II contributed substantially to the scientific evidence

associating increasing levels of specific types of air pollution with higher deaths rates

These studies are cited prominently by both the Environmental Protection Agency and World Health Organization

Former American Cancer Society Officials Who Have Defamed & Ignored Enstrom & Others

1992-2014 CEO John R. Seffrin, PhD

FY 2010 Total Compensation \$2.2 Million

EVP Research Harmon J. Eyre, MD

VP Epidemiology Michael J. Thun, MD, MS

2015-2021 CEO Gary R. Reedy

EVP Research Otis W. Brawley, MD

VP Epidemiology Susan M. Gapstur, PhD

Data Analyst W. Ryan Diver, MPH

ACS Refused to Comply with 2013 US House Subpoena and
Has Provided NO Current CPS II Data for Independent Analysis

ACS Refused to Collaborate with Several Qualified PhD Scientists
in Violation of Stated ACS Collaboration Policy

Enstrom 2017 CPS II Reanalysis

Based on Access to 1982-1988 CPS II Data

March 28, 2017 *Dose-Response* “Fine Particulate Matter and Total Mortality in Cancer Prevention Study Cohort Reanalysis”

“Conclusion: No significant relationship between PM2.5 and total mortality in the CPS II cohort was found when the best available PM2.5 data were used. The original 1995 analysis found a positive relationship by selective use of CPS II and PM2.5 data. This independent analysis of underlying data raises serious doubts about the CPS II epidemiologic evidence supporting the PM2.5 NAAQS.”

Further Details: November 9, 2017 Enstrom Talk “ACS Promotes Air Pollution Pseudoscience” at **America First Energy Conference** in Houston, TX <https://www.youtube.com/watch?v=PRiP8ZoFDA>

Enstrom 2017 Reanalysis of PM2.5 & Total Mortality During 1982-1988 in ACS CPS II Cohort

March 28, 2017 *Dose-Response* "Fine Particulate Matter and Total Mortality in Cancer Prevention Study Cohort Reanalysis"

Relative Risk Based on 10 $\mu\text{g}/\text{m}^3$ Increase in PM2.5

<u>1979-83 PM2.5</u>	<u>Subjects</u>	<u>Relative Risk (95% CI)</u>
Fully Adjusted for 47 Counties in Continental US		
IPN [Hinton]	189,676	1.021 (0.984-1.058)
HEIDC [PM2.5 DC]	189,676	1.023 (0.984-1.064)
HEI [PM2.5 OI MD]	189,676	1.081 (1.036-1.128)
Fully Adjusted for 50 Counties in Continental US		
Pope 1995 -- HEI [PM2.5 OI MD]		1.07 (1.04-1.10)

Pope Gapstur 2017 Response to Enstrom 2017

Fine Particulate Air Pollution and Mortality: Response to Enstrom's Reanalysis of the American Cancer Society Cancer Prevention Study II Cohort

“These [multiple ACS CPS II] studies have consistently demonstrated that exposure to fine particulate matter air pollution (PM_{2.5}) is associated with increased risk of mortality, especially cardiopulmonary or cardiovascular disease mortality. . . . These results underscore the importance of PM_{2.5} as a substantial determinant of mortality in the general population. Consequently, these results also suggest substantial health benefits from further reductions in ambient air pollution. . . . the study by Enstrom does not contribute to the larger body of evidence on the health effects of PM_{2.5}.”

2022-2023 Enstrom Requests to ACS Officials

November 28, 2022 Enstrom Letter to CEO Karen Knudsen,
Chief Science Officer William Dahut,
Senior VP Population Science Alpa Patel,
Data Analysis Director Ryan Diver

February 16, 2023 Enstrom Letter to ACS Board Secretary Katie Eccles

March 31, 2023 CO2 Coalition Letter to ACS Board Chair Brian Marlow

**December 20, 2022 ACS Chief Legal and Risk Officer
Timothy Phillips' Response to Enstrom**

“As a data-driven organization, we value the integrity of the scientific process. We stand behind the data and interpretation of all ACS-authored publications surrounding CPS II, and are unable to identify concerns therein.”

Use of CPS II for PM2.5 Death Claims Damages ACS

- 1) ACS violates its Mission Statement because scientifically invalid PM2.5 death claims have NO meaningful connection to cancer
- 2) ACS violates the scientific method because it refuses to allow full transparency and reproducibility regarding CPS II data
- 3) ACS violates scientific integrity because ACS dismisses evidence of NO PM2.5 deaths without finding errors in Enstrom CPS II reanalysis
- 4) ACS has politicized CPS II research by making it possible for EPA regulators and environmental activists to establish the PM2.5 NAAQS and to implement unjustified PM2.5 regulations that hurt America

Karen Knudsen, PhD, is ACS CEO as of June 1, 2021

September 3, 2021 Cancer Letter Knudsen Vision for ACS

“American Cancer Society, a 108-year-old charity that, despite having one of the most recognized brands in the U.S., has seen steady declines in public support since 2007. . . . Last year [2020], the pandemic exacerbated the problems that have been driving the charity’s decline, bringing public support down to about \$560 million, about half of its purse in 2007, without adjusting for inflation.”

July 8, 2022 Cancer Letter Knudsen Lessons Learned Rebuilding ACS

Four-pillar Knudsen Strategic Plan for ACS:

Advocacy, Patient Support, Discovery, and Development

Overall ACS Goal: To enhance cancer equity and health equity

In 2011 American Institute of Philanthropy Gave ACS a Rating of C

In 2023 Charity Watch Does NOT List ACS as a Top Cancer Charity

Charity Navigator Ranks 110 Charities Funding Cancer Research

National Pediatric Cancer Foundation	Four Star	100%
American Association for Cancer Research Foundation	Four Star	100%
Institute for Cancer Research	Four Star	100%
American Friends of Cancer Research, Inc.	Four Star	97%
Damon Runyon Cancer Research Foundation	Four Star	95%
United Breast Cancer Research Foundation	Four Star	94%
Breast Cancer Research Foundation	Four Star	91%
Lung Cancer Research Foundation	Four Star	90%
American Cancer Society	Three Star	82%
(Rank: Tied for 76th out of 110--Lowest of 12 “Super-sized” Charities)		

Conclusions

- 1. ACS Former Support of Healthy Lifestyle Research Made Possible Enstrom Epidemiologic Career**
- 2. ACS Ignores Low Cancer and Total Death Rates Associated with Healthy Lifestyles Involving Education, Marriage, and Religiosity**
- 3. ACS Does Advocacy Including Invalid Claims That ETS and PM2.5 “Cause” Lung Cancer and Other Deaths**
- 4. ACS Violates the Scientific Method, Suppresses Criticism, and is a Low Ranked Cancer Charity**
- 5. Focus on All Relevant Factors to Minimize Cancer Risk**