Supplementary Table 1. Characteristics of Prospective Studies Included in the Meta-Analysis of n-6 polyunsaturated fatty acid (PUFA) intake and colorectal caner

First author, year	Country	Cohort name	Follow-up period	Age at baseline (years)	Study size		Cancer site	N-6 PUFAs	Adjustment for covariates
					Subjects	No. of cases			
Holmes, 1999 (1)	US	Nurses' Health Study (NHS)	14 years	30-55	77,519	2,097	Breast	LA AA	Age, energy, energy-adjusted vitamin A intake, alcohol intake, time period, height, parity, age at first birth, weight change since age 18 years, age at menopause, menopausal status and use of hormone replacement therapy, family history, benign breast disease, age at menarche.
Sieri, 2002 (2)	Italy	ORDET study	5.5 years	41–70	3,367	56	Breast	LA	Age, daylight-saving period at recruitment, recruitment center, recruitment date, parity, place of birth, and level of education, total fat, BMI, waist-to-hip ratio
Voorrips, 2002 (3)	Netherlands	Netherlands Cohort Study	6.3 years	55–69	2,539	941	Breast	LA AA	Age, history of benign breast disease, maternal breast cancer, breast cancer in one or more sisters, age at menarche, age at menopause, oral contraceptive use, parity, age at first childbirth, Quetelet index, education, alcohol use, current cigarette smoking, total energy intake, and total energy adjusted fat intake.
Wirfält, 2002 (4)	Sweden	Malmo¨ Diet and Cancer	1991-1999	≥50	910	237	Breast	N-6 PUFAs	Age, year and month of data collection, quintiles of n-6, n-3, monounsaturated and saturated fatty acids, total energy, past food habit change, BMI, height, waist circumference, age at birth of first child, current hormone therapy, alcohol habits, and educational status.
Gago-Dominguez, 2003 (5)	Singapore	Singapore Chinese Health Study	5.3 years	45–74	35,298	314	Breast	N-6 PUFAs	Age at baseline interview, year of recruitment, dialect group, education, daily alcohol drinker, family history of breast cancer, age when period became regular, and number of live births

Wakai, 2005 (6)	Japan	Japan Collaborative Cohort	7.6 years	40-79	26,291	129	Breast	N-6 PUFAs	Age, study area, educational level, family history of breast cancer, age at menarche, age at menopause, age at first birth, parity, use of exogenous female hormones, alcohol consumption, smoking, consumption of green leafy vegetables, daily walking, height, BMI, and total energy intake
Thiébaut, 2009, a (7)	France	E3N	8 years	40-65	56,007	1,650	Breast	N-6 PUFAs LA AA	Age, nonalcohol energy and ethanol intakes, smoking history, history of benign breast disease, history of breast cancer in first-degree relatives, age at menarche, parity, BMI, menopausal status, age at menopause and use of menopausal hormone treatment
Murff, 2011 (8)	China	Shanghai Women's Health Study (SWHS)	1996-2007	40-70	72,571	712	Breast	LA AA	Age, BMI, total energy, family history of breast cancer, alcohol use, tobacco use, education, use of hormone replacement therapy, personal history of diabetes, menopausal status, age at menopause, age at menarche, parity, age at first pregnancy, level of physical activity, red meat intake, fish intake and vitamin E intake
Park, 2012 (9)	US	Multiethnic Cohort Study (MEC)	12 years	45-75	85,089	3,885	Breast	N-6 PUFAs LA AA	Age at cohort entry, time on study, ethnicity, family history of breast cancer, education, BMI, age at menarche, age at first live birth, number of children, age at and type of menopause, hormone replacement therapy, smoking status, energy intake, and alcohol use.
Sczaniecka, 2012 (10)	US	VITamins And Lifestyle (VITAL) Cohort	6 years	50-76	30,252	772	Breast	LA AA	Age, race, education, height, body mass index, age at menarche, age at first birth, age at menopause, history of hysterectomy, years of combined hormone therapy, years of estrogen hormone therapy, family history of breast cancer, mammography, history of benign breast biopsy, regular use of nonsteroidal antiinflammatory drugs, exercise, alcohol consumption, vegetable intake, fruit intake, and total energy.

Kiyabu, 2015 (11)	Japan	Japan Public Health Center-based prospective study (JPHC)	14.1 years	45–74	38,234	556	Breast	N-6 PUFAs	Age, area, BMI, age at menarche, age at first birth, parity, menopausal age, menopausal status at baseline, use of exogenous female hormones which include oral contraceptives and menopausal hormone treatment, leisure-time physical activity, smoking status, alcohol intake and total energy-adjusted intake of isoflavones
Bassett, 2016 (12)	Australia	Melbourne Collaborative Cohort Study	8.9 years	27-80	2,491	470	Breast	N-6 PUFAs LA DGLA AA	Age, country of birth, menopausal status, age at menarche, parity and lactation, oral contraceptive use, hormone therapy use, physical activity, alcohol consumption, smoking status, education, family history of cancer, total energy intake from food and stratified by BMI category
Sellem, 2019 (13)	France	NutriNet-Santé study	2009-2017	≥ 45	44,039	545	Breast Prostate All	N-6 PUFAs	Age, sex, BMI, height, physical activity, smoking status, number of 24-h dietary records, alcohol intake, energy intake without alcohol, family history of cancer, educational level, total lipid intake, fruit and vegetable intake
Weijenberg, 2007 (14)	Netherlands	Netherlands Cohort Study (NLCS)	7.3 years	55-69	3,500	434	Colorectal	LA	Age, sex, BMI, smoking, energy intake, family history of colorectal cancer
Butler, 2009 (15)	Singapore	Singapore Chinese Health Study	9.8 years	45–74	61,321	961	Colorectal	N-6 PUFAs	Age at interview, sex, dialect group, interview year, diabetes at baseline, smoking history, BMI, alcohol intake, education, any weekly physical activity, first degree relative diagnosed with colorectal cancer, and total daily energy intake
Murff, 2009 (16)	China	Shanghai Women's Health Study (SWHS)	1996-2007	40-70	73,242	396	Colorectal	N-6 PUFAs LA AA	Age, energy intake, total energy-adjusted n-6 PUFA intake, energy-adjusted ratio of total n-6 PUFA to n-3 PUFA intake, BMI, current smoker, alcohol use, regular physical activity in past 5 y, total energy-adjusted red meat intake, menopausal status, hormone replacement therapy use, multivitamin use, and aspirin use

Daniel, 2009 (17)	US	Cancer Prevention Study-II Nutrition Cohort	6 years	70 M 68 F, mean	99,080	869	Colorectal	N-6 PUFAs	Age, energy, recreational physical activity, NSAID use, colorectal screening, BMI, and red and processed meat, low-fat dairy, fruit, and vegetable intake
Sasazuki, 2011 (18)	Japan	The Japan Public Health Center (JPHC)	9.3 years	40–69	98,466	1,268	Colorectal	N-6 PUFAs	Age, area, BMI, smoking status, alcohol drinking, past history of or medication use for diabetes mellitus, METs, screening for colorectal cancer, total calorie, intake of calcium, vitamin D, fiber and red meat.
Key, 2012 (19)	UK	UK Dietary Cohort Consortium	1985-2006	61.7, mean	2,415	547	Colorectal	N-6 PUFAs	Age, date of diary, sex, height, weight, energy intake, alcohol intake, fiber intake, smoking, education, social class, physical activity
Song, 2014, NHS (20)	US	Nurses' Health Study (NHS)	24 years	30–55	76,386	1,469	Colorectal	N-6 PUFAs	Age, calendar year, family history of colorectal cancer, prior lower gastrointestinal endoscopy, pack-years of smoking before age 30, BMI, physical activity, current multivitamin use, postmenopausal status and hormone use, regular aspirin or NSAID use, total caloric intake, red meat, process meat, alcohol consumption, energy-adjusted intake of folate, calcium, vitamin D and total fiber.
Song, 2014, HPFS (20)	US	Health Professionals Follow-up Study (HPFS)	26 years	40–75	47,143	987	Colorectal	N-6 PUFAs	Age, calendar year, family history of colorectal cancer, prior lower gastrointestinal endoscopy, pack-years of smoking before age 30, BMI, physical activity, current multivitamin use, regular aspirin or NSAID use, total caloric intake, red meat, process meat, alcohol consumption and energy-adjusted intake of folate, calcium, vitamin D and total fiber
Hodge, 2015 (21)	Australia	Melbourne Collaborative Cohort Study (MCCS)	9 years	40–69	41,514	395	Colorectal	N-6 PUFAs LA DGLA AA	Age, education, alcohol intake, smoking status, physical activity, total energy intake and stratified by: sex, ethnicity (Southern-European migrant vs. not) and family history of cancer

Kraja, 2015 (22)	Netherlands	Rotterdam Study	14.6 years	≥55	4,967	222	Colorectal	N-6 PUFAs	Age, sex, energy-adjusted dietary fiber intake, intake of vegetable, trans fat, fruit, alcohol, and sodium
Navarro, 2016 (23)	US	Women's Health Initiative prospective cohort (WHI)	11.7 years	50–79	134,017	1,952	Colorectal	N-6 PUFAs	Age, total energy intake, BMI, education, family history of colorectal cancer, history of colonoscopy, current NSAID use, alcohol intake, smoking history, physical activity, ever use of hormone therapy, folate, calcium, and red meat intake, study component, randomization assignment and treatment arm.
Shin, 2020 (24)	Sweden	Swedish Women's Lifestyle and Health cohort (WLH)	21.3 years	29-49	48,233	344	Colorectal	N-6 PUFAs LA AA	Age, BMI, education, smoking history, alcohol intake
Schuurman, 1999 (25)	Netherlands	Netherlands Cohort Study	6.3 years	55–69	58,279	642	Prostate	LA AA	Age, family history of prostate carcinoma, socioeconomic status, total energy intake, and total energy-adjusted fat intake.
Männistö, 2003 (26)	Finland	Alpha-Tocopherol, Beta-Carotene Cancer Prevention Study	6.1 years	50-69	29,133	246	Prostate	LA GLA DGLA AA	Age, trial supplementation group, area of residence, education, BMI, alcohol consumption, and the number of years of smoking.
Laaksonen, 2004 (27)	Finland	Kuopio Ischaemic Heart Disease Risk Factor Study	12.6 years	42-60	2,002	46	Prostate All	LA	Age, year of examination, BMI, fasting serum insulin and blood glucose levels, nonesterified fatty acid concentrations.

Leitzmann, 2004 (28)	US	Health Professionals Follow-Up Study	14 years	40–75	47,866	2,965	Prostate	LA AA	Age, time period, major ancestry, family history of prostate cancer, BMI at age 21 y, height, history of type 2 diabetes, history of vasectomy, cigarette smoking in the previous decade, vigorous physical activity, intake of total energy, percentage of energy from protein intake, percentage of energy from monounsaturated fat intake, percentage of energy from saturated fat intake, percentage of energy from trans unsaturated fat intake, and intakes of calcium, supplemental vitamin E, and lycopene. other polyunsaturated fatty acids.
Neuhouser, 2007 (29)	US	Carotene and Retinol Efficacy Trial (CARET)	11 years	50-69	12,025	811	Prostate	N-6 PUFAs	Age, race/ethnicity, energy intake, BMI, smoking, family history
Park, 2007 (30)	US	Multiethnic Cohort Study (MEC)	8 years	≥45	82,483	4,404	Prostate	N-6 PUFAs	Age, time on study, ethnicity, family history of prostate cancer, education, BMI, smoking status and energy intake
Wallström, 2007 (31)	Sweden	Malmö Diet and Cancer cohort	11 years	45-73	10,564	817	Prostate	N-6 PUFAs LA AA	Age, diabetes, waist circumference, height, living alone/with partner/with other , educational level, alcohol habits, BMI, smoking history, birth country (Sweden/other; categorical), total calcium intake, consumption of fruits, vegetables, red meat
Bassett, 2013 (32)	Australia	Melbourne Collaborative Cohort	8.9 years	27-80	1,717	464	Prostate	N-6 PUFAs LA DGLA AA	Age, country of birth, education, alcohol intake, physical activity, total energy intake from food and family history of cancer and stratified by smoking status.
Pelser, 2013 (33)	US	NIH-American Association of Retired Persons (AARP) Diet and Health Study	9 years	50-71	288,268	23,281	Prostate	N-6 PUFAs LA AA	Age at entry, race, family history of prostate cancer, education, marital status, prostate-specific antigen testing in the past 3 years, physical activity, smoking, self-reported diabetes, BMI at baseline, calories, alcohol, and intake of tomatoes.

Stolzenberg-Solomon, 2002 (34)	Finland	Alpha-Tocopherol, Beta-Carotene Cancer Prevention Study	10.2 years	50-69	27,111	163	Pancreatic	LA	Age, energy intake by the residual method, years of smoking, energy-adjusted saturated fat intake
Michaud, 2003 (35)	US	Nurses' Health Study	18 years	30-55	88,802	178	Pancreatic	LA	Age, pack-years of smoking, BMI, history of diabetes mellitus, caloric intake, height , physical activity, menopausal status, glycemic load intake
Heinen, 2009 (36)	Netherlands	Netherlands Cohort Study (NLCS)	13.3 years	55-69	120,852	350	Pancreatic	LA	Age, gender, energy, smoking, alcohol, history of diabetes mellitus, history of hypertension , BMI, vegetables, fruit
Thiébaut, 2009, b (37)	US	National Institutes of Health – AARP Diet and Health Study	6.3 years	50-71	308,736 men 216,737 women	865 men 472 women	Pancreatic	N-6 PUFAs LA AA	Age, sex, total energy intake, smoking history, BMI, self-reported history of diabetes
Jain, 2000 (38)	Canada	National Breast Screening Study	10.3 years	40-59	3,918	221	Endometrial	LA	Age, total energy, BMI, ever smoked, used oral contraceptives, used hormone replacement therapy, university education, live births, age at menarche
Brasky, 2015 (39)	US	Women's Health Initiative (WHI)	13 years	50-79	87,360	1,253	Endometrial	N-6 PUFAs LA AA	Age, total energy, clinical trial /observational study intervention assignment, US region, race, education, BMI, smoking, alcohol, physical activity, age at menarche, age at first birth, age at menopause, parity, duration of combined menopausal hormone therapy, duration of estrogen-alone hormone therapy, duration of oral contraceptive use, oophoerectomy status, family history of endometrial cancer, history of diabetes
Brasky, 2016 (40)	US	Black Women's Health Study (BWHS)	18 years	21-69	47,602	282	Endometrial	N-6 PUFAs LA AA	Age, time period, total energy intake, US region, education, BMI, physical activity, alcohol consumption, smoking, fruit consumption, vegetable consumption, age at menarche, age at menopause, parity, age at first birth, duration of combined hormone therapy, duration of estrogen-alone hormone therapy, duration of oral contraceptive use, diabetes

Bertone, 2002 (41)	US	Nurses' Health Study (NHS)	1980-1996	30–55	80,258	301	Ovarian	LA AA	Age, parity, age at menarche, oral contraceptive use, duration, menopausal status/postmenopausal hormone use, tubal ligation, smoking status
Wallingford, 2012 (42)	Australia	Nambour Trial and Follow-Up Study	10 years	54, mean	1,322	325	Skin	N-6 PUFAs LA AA	Age, sex, freckling on back, elastosis of neck, treatment allocation
Park, 2018 (43)	US	Nurses' Health Study (NHS), Health Professionals Follow-up Study (HPFS)	18 years	30–55 (NHS) 40-75 (HPFS)	75,311 (NHS) 48,516 (HPFS)	794 (NHS) 736 (HPFS)	Skin	N-6 PUFAs	Age, family history of melanoma, natural hair color, number of arm moles, sunburn susceptibility as a child/adolescent, number of lifetime blistering sunburns, cumulative UV flux since baseline, BMI, physical activity, smoking status, incident SCC, incident BCC, personal history of non-skin cancer, intakes of total energy, alcohol, caffeine, and citrus fruits, menopausal status, postmenopausal hormone use, saturated, monounsaturated, and omega-3 fats, cholesterol
Luu, 2018 (44)	China	Shanghai Women's Health Study (SWHS), Shanghai Men's Health Study (SMHS)	11 years	40-70 (SWHS) 40-74 (SMHS)	121,970	1,496	Lung	N-6 PUFAs LA AA	Age, ever smoking status, ever drinking status, BMI, physical activity status, vitamin supplemental use, smoking packs-year (SMHS only), menopausal status and hormone replacement therapy (SWHS only)
Koh, 2016 (45)	China	Singapore Chinese Health Study	14 years	45–74	63,257	488	Liver	N-6 PUFAs	Age, sex, dialect, year of interview, educational level, BMI, smoking status, alcohol use, coffee drinking status, baseline history of self-reported diabetes, total energy, dietary protein, saturated fat, monounsaturated fat, omega-3 PUFA
Yang, 2020 (46)	US	Nurses' Health Study (NHS), Health Professionals Follow-up Study (HPFS)	26.6 years	62, mean	138,483	160	Liver	N-6 PUFAs	Age, sex, race, physical activity, BMI, smoking status, aspirin use, type 2 diabetes, alcohol intake, total coffee intake, total calorie intake

Abbreviations: PUFA, polyunsaturated fatty acid; LA, linoleic acid, AA, arachidonic acid; DGLA, dihomo-ɤ-linolenic acid; GLA, ɤ-linolenic acid.

Supplementary Table 2. Characteristics of Prospective Studies Included in the Meta-Analysis of blood levels of n-6 polyunsaturated fatty acids (PUFAs) and colorectal caner

First author, year	Country	Cohort name	Follow-up period	Age at baseline (years)	Study size		Cancer site	N-6 PUFAs	Adjustment for covariates
					No. of controls	No. of cases			
Chajés, 1999 (47)	Sweden	Västerbotten Intervention Project, Monitoring of Trends and Cardiovascular Disease study, Mammary-Screening Project	1986-1997	55, mean	388	196	Breast	N-6 PUFAs AA	Age, duration of follow-up, age at menarche, age at first full-term pregnancy, number of children, use of hormone replacement therapy, height and weight.
Pala, 2001 (48)	Italy	ORDET study	5.5 years	42-69	141	71	Breast	N-6 PUFAs LA GLA DGLA AA	Age, menopausal status at recruitment, daylight-saving period at blood sampling, recruitment center, recruitment date, BMI, waist hip ratio, age at menarche, age at first childbirth, age at menopause, months of lactation, parity, and educational level
Saadatian-Elahi, 2002 (49)	US	New York University Women's Health Study	4.3 years	34-65	197	197	Breast	N-6 PUFAs LA GLA DGLA AA	Age at recruitment, menopausal status at baseline, date of baseline blood sampling, number of blood samplings before a case's date of diagnosis, age at first full-term birth, family history of breast cancer, history of benign breast disease, and total cholesterol.

Rissanen, 2003 (50)	Finland	Mobile Clinic Health Examination Survey	10 years	19-89	110	58	Breast	N-6 PUFAs LA GLA DGLA	Age, menopausal status, municipality, BMI, serum cholesterol, smoking, alcohol consumption, number of pregnancies, parity, leisure-time exercise, and education
Wirfält, 2004 (51)	Sweden	Malmo¨ Diet and Cancer	1991-1999	≥50	673	237	Breast	LA DGLA AA	Age, screening date
Chajés, 2008 (52)	France	E3N	7 years	40-65	702	363	Breast	N-6 PUFAs LA GLA AA	Age, menopausal status at blood collection, fasting status at blood collection, study center, date of blood collection, BMI, alcohol consumption, height, menopausal hormone use, educational level, parity, family history of breast cancer, and history of benign breast disease.
Takata, 2009 (53)	US	β-Carotene and Retinol Efficacy Trial (CARET)	1985-1997	50-69	257	130	Breast	N-6 PUFAs LA GLA AA	Age, study center, year of the enrollment, smoking status at baseline and blood draw, BMI, overweight, obese, intervention arm, and alcohol use at the time of blood draw
Pouchieu, 2014 (54)	France	Supplementation en Vitamines et Mine´raux Antioxydants study (SU.VI.MAX)	3.7 years	51, mean	250	250	Breast All	N-6 PUFAs LA GLA DGLA AA	Age, sex, number of dietary records, intervention group of the trial, number of dietary records, BMI, height, smoking status, physical activity, alcohol intake, educational level, family history of breast cancer, menopausal status, use of hormonal treatment for menopause and number of children

Bassett, 2016 (12)	Australia	Melbourne Collaborative Cohort Study	8.9 years	27-80	2,491 subjects	470	Breast	N-6 PUFAs LA DGLA AA	Age, country of birth, menopausal status, age at menarche, parity and lactation, oral contraceptive use, hormone therapy use, physical activity, alcohol consumption, smoking status, education, family history of cancer, total energy intake from food and stratified by BMI category
Chajés, 2017 (55)	Europe	European Prospective Investigation into Cancer and Nutrition study (EPIC)	11.5 years	54, mean	2,982	2,982	Breast	N-6 PUFAs LA GLA AA	Age, center, menopausal status, time of the day at blood collection, fasting status, phase of the menstrual cycle, date at blood collection, years of education, BMI, height, menopausal hormone use at baseline, alcohol at baseline, age at first birth and parity combined, energy intake, family history of breast cancer.
Hirko, 2018 (56)	US	Nurses' Health Study II	1996-2007	32-54	794	794	Breast	N-6 PUFAs LA GLA DGLA AA	Age, menopausal status at blood draw and diagnosis, self-reported race/ ethnicity, fasting status, and month, time of day of blood collection, luteal day, menopausal hormone therapy use at blood draw. age at menarche, age at first birth /parity, breastfeeding, family history of breast cancer, history of biopsy-confirmed benign breast disease, BMI at age 18, weight change between age 18 and blood collection, alcohol consumption, physical activity

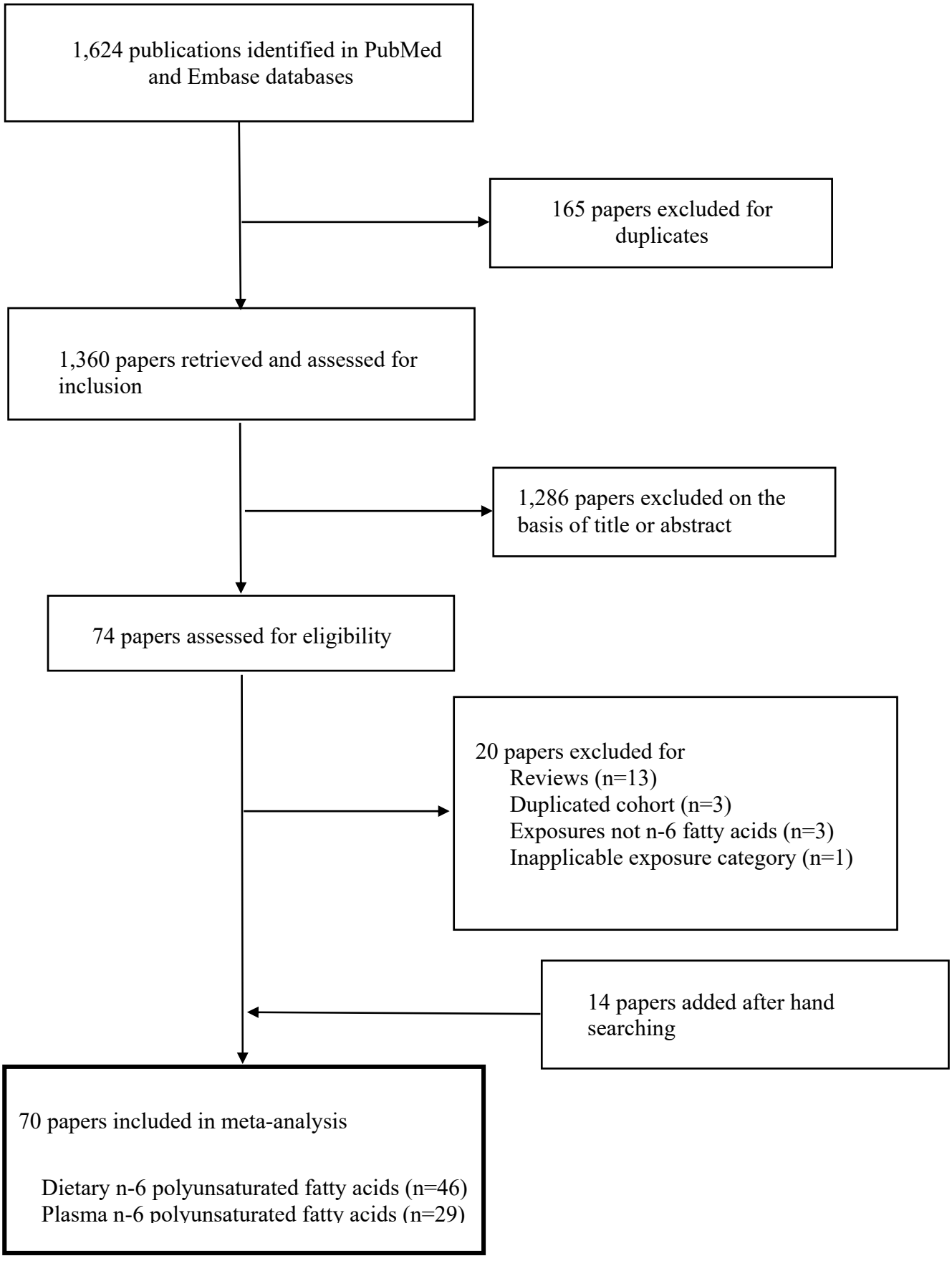
Kojima, 2005 (57)	Japan	Japan Collaborative Cohort Study	7.1 years	40–79	481	169	Colorectal	N-6 PUFAs LA GLA DGLA AA	Age, participating institution, family history of colorectal cancer in first-degree relatives, BMI, education, smoking and alcohol drinking history, green leafy vegetable intake, and physical exercise.
Hall, 2007 (58)	US	Physicians' Health Study (PHS)	1982-1995	40-84	282	178	Colorectal	N-6 PUFAs	Age, smoking status, BMI, multivitamin use, history of diabetes, random assignment to aspirin or placebo, vigorous exercise, alcohol intake, and quartile of red meat intake and long-chain n-3 PUFAs.
Hodge, 2015 (21)	Australia	Melbourne Collaborative Cohort Study (MCCS)	9 years	40–69	4,205	395	Colorectal	N-6 PUFAs	Age, education, alcohol intake, smoking status, physical activity, total energy intake and stratified by: sex, ethnicity (Southern-European migrant vs. not) and family history of cancer
Butler, 2017 (59)	Singapore	Singapore Chinese Health Study	3.3 years	45–74	350	350	Colorectal	LA GLA DGLA AA	Age, sex, dialect group, date of baseline interview, and date of biospecimen collection, BMI, smoking, education level, alcohol use, weekly physical activity , history of diabetes , and use of NSAIDs.
Harvei, 1997 (60)	Norway		11.6 years	50, mean	282	141	Prostate	N-6 PUFAs LA DGLA AA	Age, place of residence, date of blood sample,

Männistö, 2003 (26)	US	Alpha-Tocopherol, Beta-Carotene Cancer Prevention Study	6.1 years	50-69	198	198	Prostate	LA GLA DGLA AA	Age, trial supplementation group, area of residence, education, BMI, alcohol consumption, and the number of years of smoking.
Laaksonen, 2004 (27)	Finland	Kuopio Ischaemic Heart Disease Risk Factor Study	12.6 years	42-60	2,002	151	Prostate All	N-6 PUFAs LA	Age, year of examination, BMI, fasting serum insulin and blood glucose levels, nonesterified fatty acid concentrations
Chavarro, 2007 (61)	US	Physician's Health Study (PHS)	13 years	40-84	476	476	Prostate	LA GLA DGLA AA	Age, smoking status, length of follow-up
Crowe, 2008 (62)	Europe	European Prospective Investigation into Cancer and Nutrition (EPIC)	4.2 years	60, mean	962	962	Prostate	LA DGLA AA	Age, study center, time of day of blood collection, time between blood draw and last consumption of food or drink, BMI, smoking, alcohol intake, education, marital status, and physical activity
Park, 2009 (63)	US	Multiethnic Cohort (MEC)	1.9 years	45-75	729	376	Prostate	N-6 PUFAs LA AA	Age, geographic location (Hawaii or California), race/ethnicity, birth year, date of blood draw, time of blood draw, fasting hours, family history of prostate cancer, BMI, education
Brasky, 2011 (64)	US	Prostate Cancer Prevention Trial	7 years	55–84	1,803	1,658	Prostate	N-6 PUFAs LA AA	Age, treatment, prostate cancer family history, race, diabetes, BMI, alcohol, and treatment arm

Bassett, 2013 (32)	Australia	Melbourne Collaborative Cohort	8.9 years	27-80	1,717 subjects	464	Prostate	N-6 PUFAs LA DGLA AA	Age, country of birth, education, alcohol intake, physical activity, total energy intake from food and family history of cancer and stratified by smoking status.
Brasky, 2013 (65)	US	Selenium and Vitamin E Cancer Prevention Trial (SELECT)	2001-2011	≥50	1,393	834	Prostate	LA AA	Age, race, education, history of diabetes, family history of prostate cancer, and SELECT intervention arm
Cheng, 2013 (66)	US	Carotene and Retinol Efficacy Trial (CARET)	7 years	45-69	1,398	641	Prostate	N-6 PUFAs LA GLA DGLA AA	Age, race/ethnicity, CARET randomization assignment, family history of prostate cancer in first-degree relatives, alcohol consumption, smoking status, smoking pack-years, BMI
Matejcic, 2018 (67)	Europe	European Prospective Investigation into Cancer and Nutrition (EPIC)	11.7 years	35-70	375	375	Pancreatic	N-6 PUFAs LA GLA DGLA AA	Age at blood collection, study center, sex, date and time at blood collection, length of follow-up, fasting status, use of pill/hormonal replacement treatment, BMI, height, history of diabetes mellitus, smoking status, alcohol intake, education, physical activity.
Wallingford, 2013 (68)	Australia	Nambour Skin Cancer Study	11 years	54, mean	1,191 subjects	337	Skin	N-6 PUFAs LA AA	Age, sex, elastosis of neck, total solar keratoses, treatment allocation
Morimoto, 2012 (69)	US	Multiethnic Cohort Study (MEC)	3.1 years	45-75	549	275	Lymphoma	N-6 PUFAs LA AA	Age, sex, ethnicity, location, date of blood draw, time of day of blood draw, fasting hours prior to blood draw
Chajés, 2011 (70)	Europe	European Prospective Investigation into	1992-2002	59, mean	326	238	Gastric	N-6 PUFAs LA DGLA AA	Age, sex, study center, and date of blood donation, Helicobacter pylori infection status, BMI, status, duration, and intensity of

	Cancer and Nutrition (EPIC)	smoking, physical activity, level of schooling, energy intake

Abbreviations: PUFA, polyunsaturated fatty acid; LA, linoleic acid, AA, arachidonic acid; DGLA, dihomo-ɤ-linolenic acid; GLA, ɤ-linolenic acid.



Supplementary Figure 1. Flow chart of study selection

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