

## Supplemental materials

### Dietary Patterns, Uric Acid Levels, and Hyperuricemia: A Systematic Review and Meta-Analysis

#### Catalogue

<b>Table S1</b> Results of literature search.....	<b>P2</b>
<b>Table S2</b> Dietary patterns, categories, and constituent foods from 41 studies included in the meta-analysis. ....	<b>P3</b>
<b>Table S3</b> Quality assessment: cross-sectional studies. ....	<b>P11</b>
<b>Table S4</b> Quality assessment: cohort studies and case-control studies. ....	<b>P13</b>
<b>Table S5</b> Subgroup analysis for the association between dietary patterns and hyperuricemia. ...	<b>P14</b>
<b>Table S6</b> Publication bias of included articles. ....	<b>P16</b>
<b>Figure S1</b> Assessment risk of bias of non-randomized studies. ....	<b>P17</b>
<b>Figure S2</b> Assessment risk of bias of randomized controlled trials. ....	<b>P18</b>
<b>Figure S3</b> Forest plot of plant-based dietary pattern and SUA. ....	<b>P19</b>
<b>Figure S4</b> Forest plot of animal-based dietary pattern and SUA. ....	<b>P20</b>
<b>Figure S5</b> Forest plot of mixed dietary pattern and SUA. ....	<b>P21</b>
<b>Figure S6</b> Funnel plot for the association between animal-based dietary pattern and SUA (effect value: mean difference) . ....	<b>P22</b>
<b>Figure S7</b> Funnel plot for the association between dietary patterns and SUA (effect value: coefficient). ....	<b>P23</b>
<b>Figure S8</b> Funnel plot for the association between dietary patterns and hyperuricemia (effect value: odds ratio). ....	<b>P24</b>
<b>Figure S9</b> Influence analysis for the association between animal-based dietary pattern and SUA (effect value: mean difference) ....	<b>P25</b>
<b>Figure S10</b> Influence analysis for the association between dietary patterns and SUA (effect value: coefficient). ....	<b>P26</b>
<b>Figure S11</b> Influence analysis for the association between dietary patterns and hyperuricemia (effect value: odds ratio). ....	<b>P27</b>
<b>Figure S12</b> Influence analysis for the association between plant-based dietary pattern and SUA (effect value: mean difference). ....	<b>P28</b>
<b>Figure S13</b> Forest plot of plant-based dietary pattern and SUA in cross-sectional studies (excluded studies of Pilar Guallar-Castillón et al. and Ahmad Syauqy et al). . ....	<b>P29</b>

**Table S1** Results of literature search.

Database	Date of search	Query formulation	Number of literature detected
PubMed	March 15, 2023	((((dietary pattern*) OR (eating pattern*) OR (food pattern*) OR (diet pattern*) OR (nutrient pattern*) OR (diet*) OR (diet index) OR (diet score) OR (dietary) OR (dietary intake) OR (dietary score) OR (dietary index) OR (dietary type*) OR (dietary habit*) OR (dietary approaches*)) AND ((hyperuricemia) OR (serum uric acid) OR (uric acid) OR (Serum Urate))))	5850
Web of Science	March 15, 2023	((((dietary pattern*) OR (eating pattern*) OR (food pattern*) OR (diet pattern*) OR (nutrient pattern*) OR (diet*) OR (diet index) OR (diet score) OR (dietary) OR (dietary intake) OR (dietary score) OR (dietary index) OR (dietary type*) OR (dietary habit*) OR (dietary approaches*)) AND ((hyperuricemia) OR (serum uric acid) OR (uric acid) OR (Serum Urate))))	9036
Embase	March 15, 2023	((((dietary pattern*) OR (eating pattern*) OR (food pattern*) OR (diet pattern*) OR (nutrient pattern*) OR (diet*) OR (diet index) OR (diet score) OR (dietary) OR (dietary intake) OR (dietary score) OR (dietary index) OR (dietary type*) OR (dietary habit*) OR (dietary approaches*)) AND ((hyperuricemia) OR (serum uric acid) OR (uric acid) OR (Serum Urate))))	13362

**Table S2** Dietary patterns, categories, and constituent foods from 41 studies included in the meta-analysis.

Author	Location	Year	Dietary pattern	Constituent foods	Categories
Meiqi Zhou et al. (1) [8]	China	2022	Plant-based dietary pattern	High intake of fresh vegetables, fruits, dairy products, eggs, and legumes and their products	Plant-based
			Animal dietary pattern	High intake of poultry, livestock, fish and shrimp, processed meat and nuts	Animal-based
			RRR dietary pattern	High intake of poultry, sugary beverages, and animal organs and the low intake of desserts and snacks	Mixed
			PLS diet	Poultry, Animal organs, Sugary beverages, Tea or coffee, Meat, Legumes and their products, Fresh vegetables, Preserved vegetables	Animal-based
			Processed food diet	Mushrooms and algae, Preserved vegetables, Snacks and dessert, Processed meats	Mixed
Tingjing Zhang et al. [36]	China	2022	Vegetable	High intake of celery, cucumber, Chinese cabbage, green leafy vegetables, pumpkin, and carrot	Plant-based
			Sweet food	Strawberry, kiwi fruit, persimmon, grape, pineapple, Western-style pastry, cakes, sweets, and candied fruits	Mixed
			Animal food patterns	High consumption of animal organs, animal blood, animal liver, preserved eggs and sausage	Animal-based
Meilin Zhang et al. [20]	China	2012	Animal products and fried food pattern	High in pork, eggs, animal giblets, poultry and fried wheat products while low in vegetables and fruits	Animal-based
			Western pattern	High in beef, lamb, cake, and beverages, including juice and alcoholic beverages	Animal-based
			Soybean products and fruit pattern	High in soybean products, fruits, vegetables and starchy tubers	Plant-based
Marta Guasch-Ferré et al. [15]	Spain	2013	Mediterranean Diet	High consumption of fruits, vegetables, legumes, olive oil, nuts, and whole grain; a moderate consumption of wine, dairy products, and poultry; and a low consumption of red meat, sweet beverages, creams, and pastries	Plant-based
Yuxiang Yang et al. [51]	China	2022	Typical Chinese	Wheat, coarse grain, fried staple, tuber	Plant-based
			Modern Chinese	Bacteria, legume and product, mixed beans, fresh vegetable, fresh fruit, dry fruit, aquatic product, coarse grain, dairy and product, fresh egg, nuts and seeds	Plant-based

			Western	Western staples, snack, soft beverage, dairy and product, nuts and seeds, processed meat, fresh egg, dry fruit	Mixed
			Animal products and alcohol	Organ, red meat, alcohol, poultry, fried staple, processed egg, aquatic product, processed meat	Animal-based
			Tuber and fermented vegetables	Fermented vegetable, tuber, animal fat, dry vegetable, mixed beans, snack	Plant-based
Yang Xia et al. [18]	China	2018	Vegetable dietary pattern	Vegetables, soy products, coarse cereals	Plant-based
			Sweet pattern	Candied fruits, cakes, ice cream	Mixed
			Animal foods dietary pattern	Animal organ, seafood, processed meat products	Animal-based
Zumin Shi et al. [37]	China	2020	Traditional southern pattern	Rice, pork and vegetable, inverse loadings for wheat flour and whole grain	Mixed
			Modern dietary pattern	Fruit, soy milk, eggs, milk, deep fried products, fast food and cakes, inverse loadings for rice and salted vegetables	Mixed
Xirun Liu et al. (1) [21]	China	2020	HUA-related dietary pattern	Higher intake of fish, fresh meat, wine, sugary drinks, cured bacon, wheat products and less intake of vegetables and milk	Animal-based
			Mixed food pattern	Intake of fish, vegetables, eggs, animal viscera, fresh meat, cereals and potatoes	Animal-based
			Meat and wine pattern	Intake of cured bacon, wine, algae, nuts, fish, beans	Mixed
			Fruit and vegetable pattern	High intake of fruits, vegetables, rice noodles, cured bacon and less fresh meat	Plant-based
			Vegetable and fish meat pattern	Intake of fish, vegetables, algae, animal viscera, wheat products	Mixed
			Mixed food pattern	legumes, algae, vegetables, fruits, fresh meat, sugary drinks, milk, nuts	Plant-based
			Vegetable and staple pattern	Intake of vegetables, cereals and potatoes, rice and noodles, algae, cured bacon, milk	Plant-based
Xirun Liu et al. (2) [52]	China	2018	Animal products pattern	Fish, animal giblets, fresh meat, wheat products	Animal-based
			Plant-based pattern	Vegetables, fruits, mushroom, algae food, legumes, nuts, brawn, and bacon	Plant-based
			Mixed food	Rice, cereal, tubers, snack, dessert, eggs, and animal giblets	Mixed

Shaokai Lin et al. [9]	China	2018	Meat pattern	Livestock, other meats and dairy products	Animal-based
			Coastal pattern	Aquatic products and alcoholic drinks	Mixed
			Traditional pattern	Cereals, pork and vegetables	Mixed
			High-quality protein pattern	Soy and its products, eggs	Mixed
Fang He et al. [53]	China	2017	Traditional Chinese pattern	High intake of rice and rice products, coarse grains, starchy tubers, vegetables, pickled vegetables, pork, soybean and soybean products, and tea	Plant-based
			Meat food pattern	High intakes of poultry, beef/mutton, processed and cooked meat, eggs, fats/oil, snacks and fast food, milk and dairy, cake and biscuits, and soft drinks	Animal-based
			Mixed food patterns	High intakes of wheat and wheat products, vegetables, mushroom, fresh fruits, pork, fish and shrimps, seafood, and caffeinated beverages	Plant-based
Yun Gao et al. [54]	China	2021	DASH	Higher intakes of vegetables, fruits or 18 grains and lower intake of fat or sweetened beverages	Plant-based
Kontogianni, M. D. et al. [42]	Korean	2012	Mediterranean diet	High consumption of fruits, vegetables, legumes, olive oil, nuts, and whole grain; a moderate consumption of wine, dairy products, and poultry; and a low consumption of red meat, sweet beverages, creams, and pastries	Plant-based
Christina Chrysohoou et al. [41]	Ikaria Island	2011	Mediterranean diet	High consumption of fruits, vegetables, legumes, olive oil, nuts, and whole grain; a moderate consumption of wine, dairy products, and poultry; and a low consumption of red meat, sweet beverages, creams, and pastries	Plant-based
L. Bekkouche et al. [16]	Algeria	2014	Mediterranean Diet	High consumption of fruits, vegetables, legumes, olive oil, nuts, and whole grain; a moderate consumption of wine, dairy products, and poultry; and a low consumption of red meat, sweet beverages, creams, and pastries	Plant-based
Stephen P Juraschek et al. (1) [60]	America	2018	Fruit and Vegetable-rich diet	A fruit and vegetable (FV)-rich diet but otherwise similar to typical American diet	Plant-based
			DASH	Higher intakes of vegetables, fruits or 18 grains and lower intake of fat or sweetened beverages	Plant-based

			Typical American diet	Low in fruits, vegetables, and dairy products, with a fat content typical of the average diet in the United States.	Mixed
Olive Tang et al. [61]	America	2017	DASH	Higher intakes of vegetables, fruits or 18 grains and lower intake of fat or sweetened beverages	Plant-based
			Typical American diet	Low in fruits, vegetables, and dairy products, with a fat content typical of the average diet in the United States.	Mixed
Stephen P. Juraschek et al. (2) [62]	America	2021	DASH	Higher intakes of vegetables, fruits or 18 grains and lower intake of fat or sweetened beverages	Plant-based
M. Chatzipavlou et al. [66]	Greece	2014	Mediterranean Diet	High consumption of fruits, vegetables, legumes, olive oil, nuts, and whole grain; a moderate consumption of wine, dairy products, and poultry; and a low consumption of red meat, sweet beverages, creams, and pastries	Plant-based
Yi-Tsen Tsai MS et al. [47]	China Taiwan	2012	Vegetable and fruit pattern	Dark vegetables, White vegetables, Soy products, Fruit	Plant-based
			Uric acid-prone pattern	Seafood, Meat, Beverages, Organ meat	Animal-based
Ahmad Syauqy et al. [48]	China Taiwan	2020	Veggie–fruit–grains dietary pattern	Dark- or light-colored vegetables, fruit, root crops, vegetables in oil/dressing, whole grains, rice/flour products, and legumes/soy products.	Plant-based
			Meat–seafood–eggs dietary pattern	Meat, seafood, organ meats, and eggs	Animal-based
			Processed food–sweets dietary pattern	Processed food, deep-fried food, sugary drinks, sauce, instant noodles, jam/honey, refined dessert, and fried rice/flour products	Mixed
			Milk–dairy dietary pattern	Milk and dairy products	Mixed
Meilin Zhang et al. (2) [17]	China	2016	High fruit and soybean products diet	High in soybean products, fruits, vegetables and starchy tubers	Plant-based
Xueying Wang et al. [57]	China	2019	Traditional model	High intake of cereals, meat, fruits and vegetables	Mixed
			Fried and smoked food and dessert model	High intake of fried, cured, smoked foods and desserts	Mixed
			High quality protein model	High intake of milk, eggs, beans	Mixed
Tingting Li et al. [19]	China	2022	Meat-based	High intake of animal organ meats, seafood, fresh	Animal-based

				meat, and eggs	
			Plant-based	Intake of mushroom algae, beans, and their products, nuts, and fruits	Mixed
			Local special	Intake of marinated smoked meat and grease	Animal-based
Tingxin Li et al. [55]	China	2022	Animal-based and processed food	Refined rice and noodle, meat, aquatic products	Mixed
			Traditional	Whole grains, vegetables, legume products	Plant-based
			Ovo-lacto vegetarian	Dairy products, fruits, eggs	Plant-based
Jiaqi Nie et al. [56]	America	2022	HEI	Total fruit, whole fruit, total vegetables , dark green and orange vegetables and legumes, total grains, whole grains), milk , meat and beans, and oils.	Plant-based
Kangqi Yi et al. [38]	China	2022	DASH	Higher intakes of vegetables, fruits or 18 grains and lower intake of fat or sweetened beverages	Plant-based
Tanya J Major et al. [43]	America	2018	DASH	Higher intakes of vegetables, fruits or 18 grains and lower intake of fat or sweetened beverages	Plant-based
			Mediterranean diet	High consumption of fruits, vegetables, legumes, olive oil, nuts, and whole grain; a moderate consumption of wine, dairy products, and poultry; and a low consumption of red meat, sweet beverages, creams, and pastries	Plant-based
Ioanna Panagiota Kalafati et al. [40]	Greek	2018	Fast-food type	Fast-food main dishes, Sugar-sweetened soft drinks, Fried potatoes, Savory and puff pastry snacks, Red meat, Potatoes	Mixed
			Prudent	Olive oil-based cooked vegetables, Legumes, Potatoes ,Fruits & Vegetables · Fatty fish	Plant-based
			High Protein	Poultry, Eggs, Red meat	Animal-based
			Unsaturated FA	Nuts, Chocolate, Foods rich in unsaturated FA	Mixed
Luisa Lampignano et al. [44]	Italy	2021	Mediterranean diet	High consumption of fruits, vegetables, legumes, olive oil, nuts, and whole grain; a moderate consumption of wine, dairy products, and poultry; and a low consumption of red meat, sweet beverages, creams, and pastries	Plant-based
Giana Zarbato Longo et al. [45]	Brazil	2022	Western	Hamburgers and cheese sandwiches, Soft drinks, Pizza/pasta, Stroganoff, Chocolate, Processed meat,	Mixed

				Sweets	
			Snacks and processed food	Olive oil and other oils, Cheeses and cream cheese, Natural spices, Processed foods, Snacks (toasted), Snacks (toasted)	Mixed
			Healthy	Fruits, Breakfast cereals, Vegetables, Natural fruit juice, Yogurt and fermented milk	Plant-based
			Traditional brazilian	Rice and roots, Beans, Caffeinated beverages, Meats (red and pork)	Mixed
Judith Heindel et al. [46]	Germany	2020	DASH	Higher intakes of vegetables, fruits or 18 grains and lower intake of fat or sweetened beverages	Plant-based
			Mediterranean diet	High consumption of fruits, vegetables, legumes, olive oil, nuts, and whole grain; a moderate consumption of wine, dairy products, and poultry; and a low consumption of red meat, sweet beverages, creams, and pastries	Plant-based
			German Food Pyramid Index	High intake of beverages, fruits, and vegetables. Low intake of cereal products, dairy products, meat, fats/oils, and sweet intake	Plant-based
Linda Hagfors et al. [65]	Sweden	2003	Mediterranean Diet	High consumption of fruits, vegetables, legumes, olive oil, nuts, and whole grain; a moderate consumption of wine, dairy products, and poultry; and a low consumption of red meat, sweet beverages, creams, and pastries	Plant-based
Mariane He´roux et al. [39]	America	2010	Unhealthy Eating Index	Processed and red meat, white potato products, nonwhole grains, added fat and reduced consumption of non-citrus fruits	Animal-based
Christin Heidemann et al. [49]	Germany	2011	Processed foods pattern	High intake of refined grains, processed meat, red meat, high-sugar beverages, eggs, potatoes, beer, sweets and cakes, snacks and butter	Mixed
			Health-conscious pattern	High intake of vegetables, vegetable oils, legumes, fruits, fish and whole grains	Plant-based
Roseline Yap WK et al. [22]	Malay	2012	Vegetables diet	Various types of vegetables and fruits such as cabbage, cauliflower, broccoli, non-leafy, root and green leafy vegetables	Plant-based



Pilar Guallar-Castillón et al. [50]	Spain	2013	Fruits diet	Grapes, canned fruits, fresh longan, lychee, apple, orange and pear respectively	Plant-based
			Animal protein and rice diet	Fish, shrimp, chicken egg and rice	Animal-based
			Fast food and preserved foods diet	Various types of meat burgers, chicken nuggets, cheese and canned fish	Animal-based
			Southern European Atlantic Diet score	Fresh fish, cod, red meat and pork products, dairy products, legumes and vegetables, vegetable soup, potatoes, whole-grain bread, and wine	Mixed
Maja Ortner Hadziabdi et al. [63]	Croatia	2016	Mediterranean diet	High consumption of fruits, vegetables, legumes, olive oil, nuts, and whole grain; a moderate consumption of wine, dairy products, and poultry; and a low consumption of red meat, sweet beverages, creams, and pastries	Plant-based
			Mediterranean diet	High consumption of fruits, vegetables, legumes, olive oil, nuts, and whole grain; a moderate consumption of wine, dairy products, and poultry; and a low consumption of red meat, sweet beverages, creams, and pastries	Plant-based
			Standard hypolipemic diet	High consumption of fruits, vegetables, legumes, and whole grain; a moderate consumption of wine, dairy products, and poultry; and a low consumption of red meat, sweet beverages, creams, and pastries	Mixed
Stephen P. Juraschek et al. (3) [64]	America	2018	DASH	Higher intakes of vegetables, fruits or 18 grains and lower intake of fat or sweetened beverages	Plant-based
Farhad Vahid et al. [58]	Luxembourg	2023	AHEI	Total fruit, whole fruit, total vegetables, dark green and orange vegetables and legumes, total grains, whole grains), milk, meat and beans, and oils.	Plant-based
			Mediterranean diet	High consumption of fruits, vegetables, legumes, olive oil, nuts, and whole grain; a moderate consumption of wine, dairy products, and poultry; and a low consumption of red meat, sweet beverages, creams, and pastries	Plant-based
			DASH	Higher intakes of vegetables, fruits or 18 grains and lower intake of fat or sweetened beverages	Plant-based

Sergey A. Maksimov et al. [59]	Russia	2020	‘Smart’ dietary pattern	Dairy products (milk, kefir, yogurt, sour cream, cream, cottage cheese, cheese), Sweets and pastries (candies, jams, cookies, etc.), Fruits and vegetables, Cereals, pasta	Plant-based
			‘Salty’ dietary pattern	Sausages, frankfurters, offal (tongue, liver, heart, etc.), Pickled and marinated foods	Animal-based
			‘Meat’ dietary pattern	Meat (beef, pork, lamb, etc.), Fish and seafood, Poultry (chicken, turkey, etc.)	Animal-based
			‘Mixed’ dietary pattern	Legumes (beans, lentils, peas, etc.), Pickled and marinated foods, Fish and seafood	Mixed

Abbreviation: RRR: Reduced Rank Regression; PLS: Partial Least Squares Regression; DASH: Dietary Approaches to Stop Hypertension; HEI-2015: the Healthy Eating Index 2015; FA: Fatty Acids.

**Table S3** Quality assessment: cross-sectional studies.

First author, published year	Selection (Max = 4*)	Comparability (Max = 2*)	Outcome (Max = 3*)
Jiaqi Nie et al. 2022[56]	****	**	***
Kontogianni, M. D et al. 2012[42]	***	**	**
Christina Chrysohoou et al. 2011[41]	***	**	***
Tanya J Major et al. 2018[43]	***	*	**
Luisa Lampignano et al. 2021[44]	***	**	**
Ahmad Syauqy et al. 2021[48]	****	**	*
Giana Zarbato Longo et al. 2022[45]	***	**	**
Judith Heindel et al. 2020[46]	***	**	***
Yi-Tsen Tsai MS et al. 2012[47]	***	**	**
Christin Heidemann et al. 2011[49]	***	**	**
Roseline Yap WK et al. 2012[22]	***	**	**
Pilar Guallar-Castillón et al. 2013[50]	***	**	***
Meiqi Zhou et al. 2022 [8]	***	**	**
Marta Guasch-Ferré et al. 2013[15]	****	**	*
Yuxiang Yang et al. 2022[51]	***	**	**
Xirun Liu et al. (1) 2020[21]	***	**	***
Xirun Liu et al. (2) 2018[52]	***	**	***
Shaokai Lin et al. 2018[9]	***	**	***
Fang He et al. 2017[53]	***	**	**
Yun Gao et al. 2021[54]	***	*	***
Xueying Wang et al. 2019[57]	***	**	**

Tingting Li et al. 2022[19]	***	**	**
Tingxin Li et al. 2022[55]	***	*	**
Farhad Vahid et al. 2023[58]	***	**	**
Sergey A. Maksimov et al. 2020[59]	***	**	***

---

**Table S4** Quality assessment: cohort studies and case-control studies.

First author, published year	Selection	Comparability	Outcome
Zumin Shi et al. 2020[37]	****	**	***
Tingjing Zhang et al. 2022[36]	****	**	***
Kangqi Yi et al. 2022[38]	****	**	***
Mariane He´roux et al. 2010[39]	****	*	***
Meilin Zhang et al. (1) 2012[20]	****	**	***
Ioanna Panagiota Kalafati et al. 2018[40]	****	*	***
Yang Xia et al.2018[18]	****	**	***

**Table S5** Subgroup analysis for the association between dietary patterns and hyperuricemia.

Dietary patterns	Study characteristic	Categories	Effect size	<i>I</i> <sup>2</sup> (%)	Odds ratio	95% CI	P
Plant-based dietary pattern (n= 22)	Pooled effect size	/	22	93.0	0.75	(0.68, 0.83)	0.000
	Sample size	n ≤ 2000	9	77.1	0.75	(0.58, 0.98)	0.000
		n > 2000	13	95.6	0.74	(0.66, 0.85)	0.000
	Study design	Cross-sectional study	18	94.2	0.75	(0.66, 0.85)	0.000
		Cohort study	2	0.0	0.80	(0.74, 0.87)	0.580
		Case-control study	2	91.2	0.52	(0.17, 1.58)	0.001
	Methods used to identify dietary patterns	Posteriori	17	91.9	0.75	(0.63, 0.88)	0.000
		Priori	5	92.6	0.78	(0.66, 0.91)	0.000
	Location	China	18	91.2	0.74	(0.64, 0.86)	0.000
		The other regions	4	54.2	0.85	(0.78, 0.92)	0.088
Animal-based dietary pattern (n= 16)	Pooled effect size	/	16	87.6	1.36	(1.21, 1.54)	0.000
	Sample size	n ≤ 2000	6	14.0	1.31	(1.13, 1.52)	0.325
		n > 2000	10	92.7	1.39	(1.16, 1.66)	0.000
	Study design	Cross-sectional study	12	91.0	1.37	(1.15, 1.65)	0.000
		Cohort study	1	/	1.24	(1.13, 1.37)	/
Case-control study		3	0.0	1.53	(1.25, 1.87)	0.386	
Mixed dietary pattern (n= 22)	Pooled effect size	/	22	86.3	1.16	(1.01, 1.32)	0.000
	Sample size	n ≤ 2000	11	68.5	1.22	(0.99, 1.51)	0.000
		n > 2000	11	91.7	1.12	(0.94, 1.33)	0.000

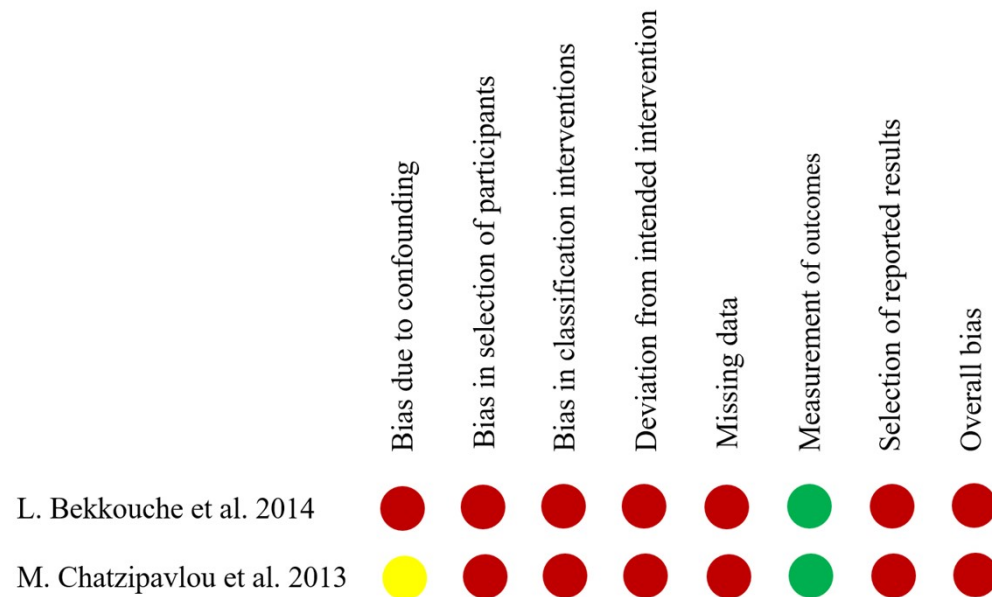
Study design	Cross-sectional study	18	64.1	1.06	(0.95, 1.18)	0.000
	Cohort study	3	97.2	1.65	(0.91, 2.99)	0.000
	Case-control study	1	/	1.10	(0.89, 1.36)	/

---

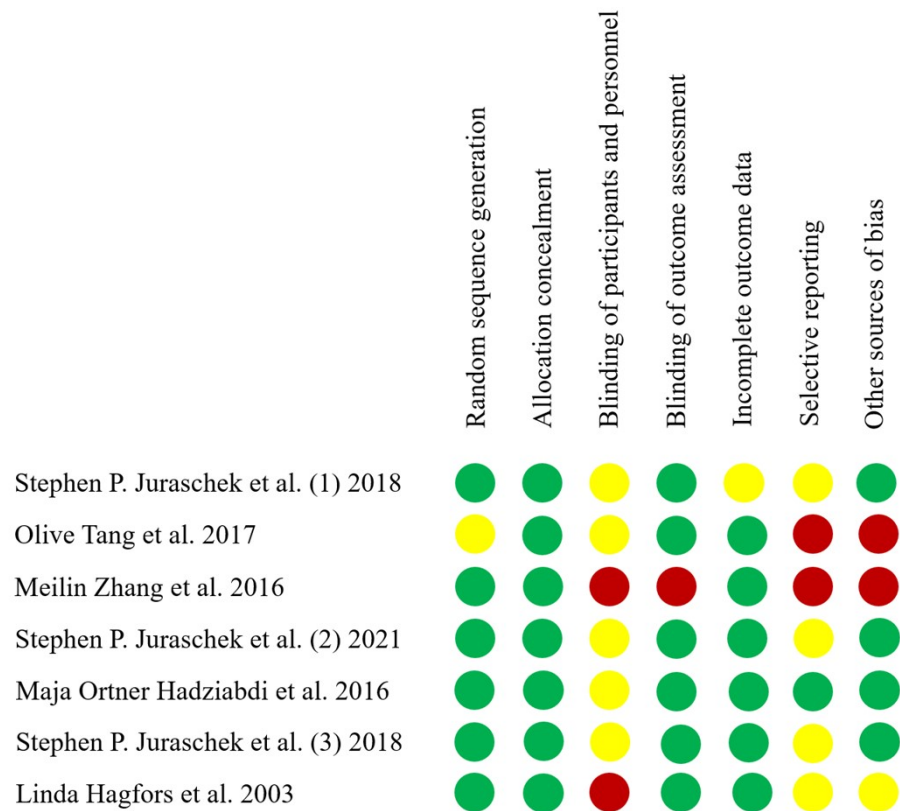
**Table S6.** Publication bias of included articles.

Dietary patterns	Categories	Publication bias
Plant-based dietary pattern	Hyperuricemia	P = 0.028
	SUA-mean difference	P = 0.958
	SUA-coefficient	P = 0.000
Animal-based dietary pattern	Hyperuricemia	P = 0.402
	SUA-mean difference	P = 0.879
	SUA-coefficient	P = 0.372
Mixed dietary pattern	Hyperuricemia	P = 0.928
	SUA-mean difference	P = 0.885
	SUA-coefficient	P = 0.517

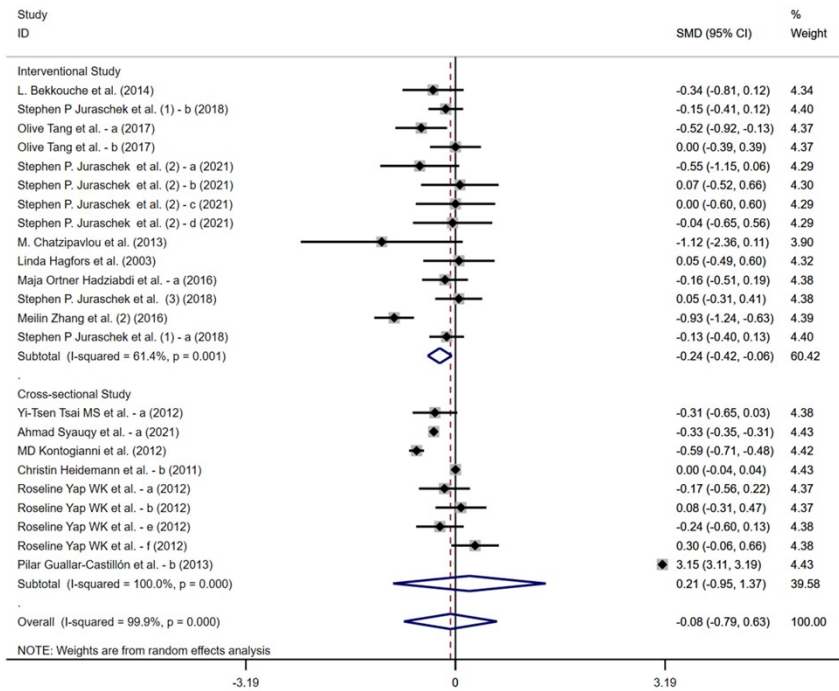




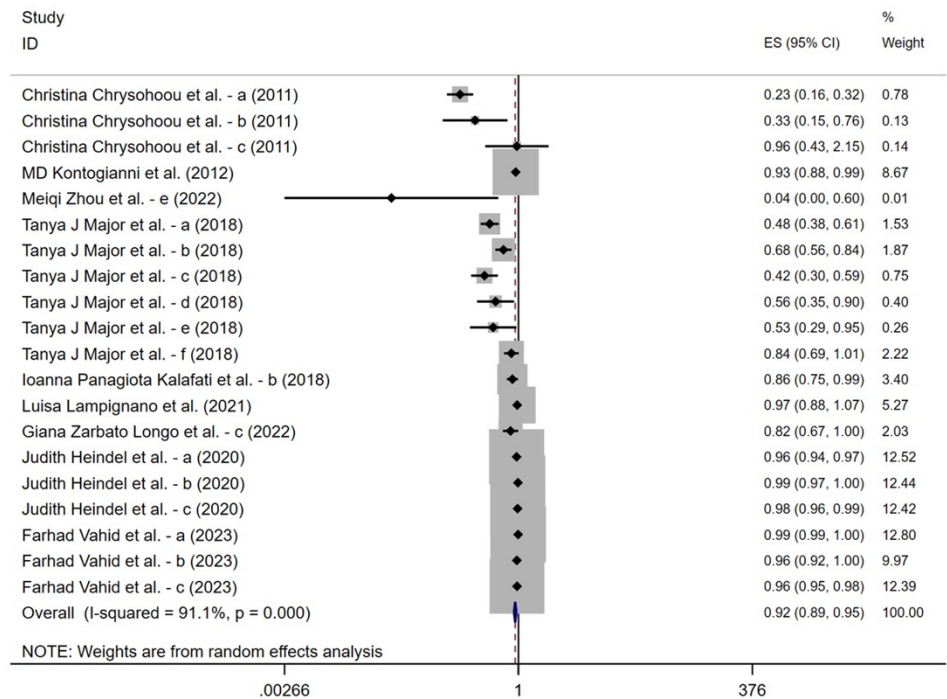
**Figure S1** Assessment risk of bias of non-randomized studies included in this review according to the Risk of Bias in Non-randomized Studies-of Interventions (ROBINS-I) assessment tool. Red: high/critical risk, yellow: moderate risk, green: low risk, grey: no information or unclear risk.



**Figure S2** Assessment risk of bias of randomized controlled trials included in this review according to the Cochrane Collaboration’s tool. Red: high risk, yellow: moderate risk, green: low risk, grey: no information or unclear risk.

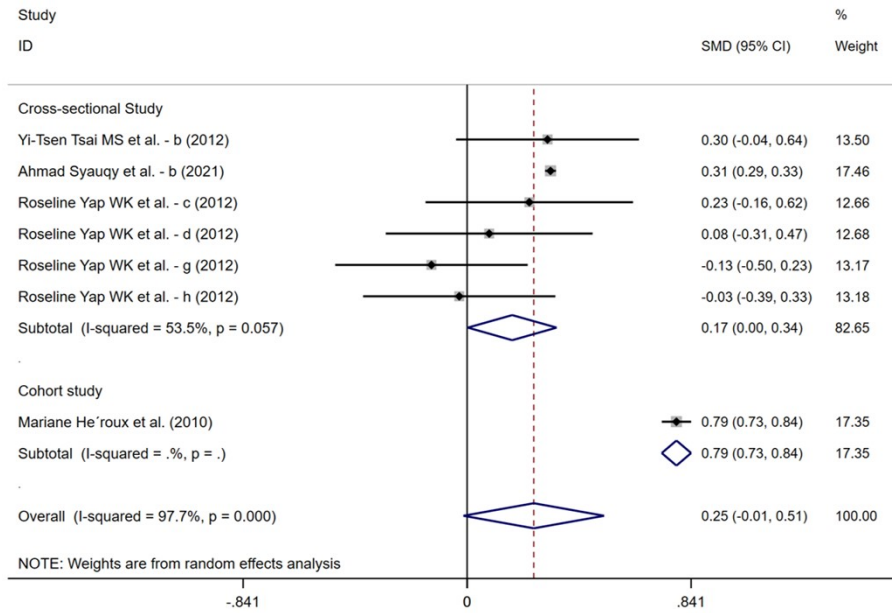


(A) The effect size is mean difference

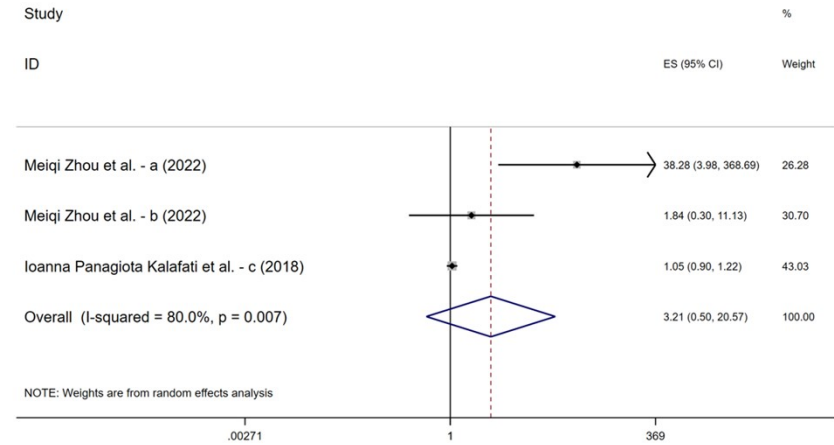


(B) The effect size is odds ratio

Figure S3 Forest plot of plant-based dietary pattern and SUA.

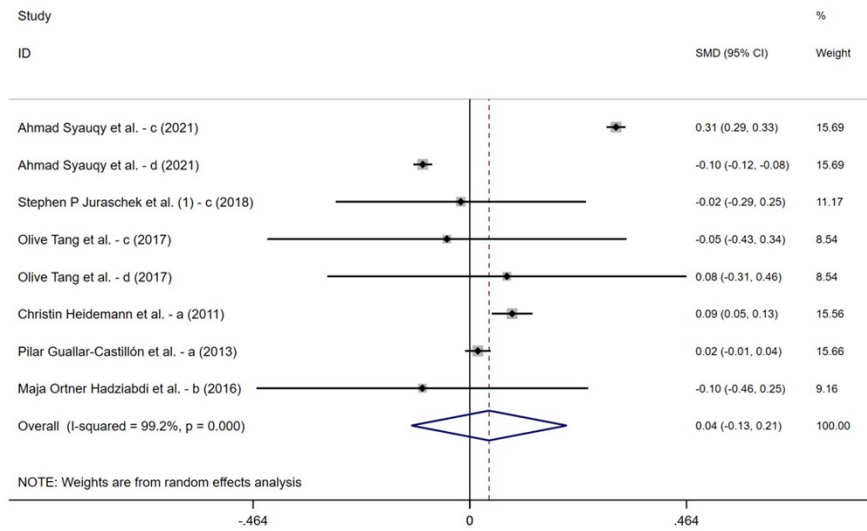


(A): The effect size is mean difference

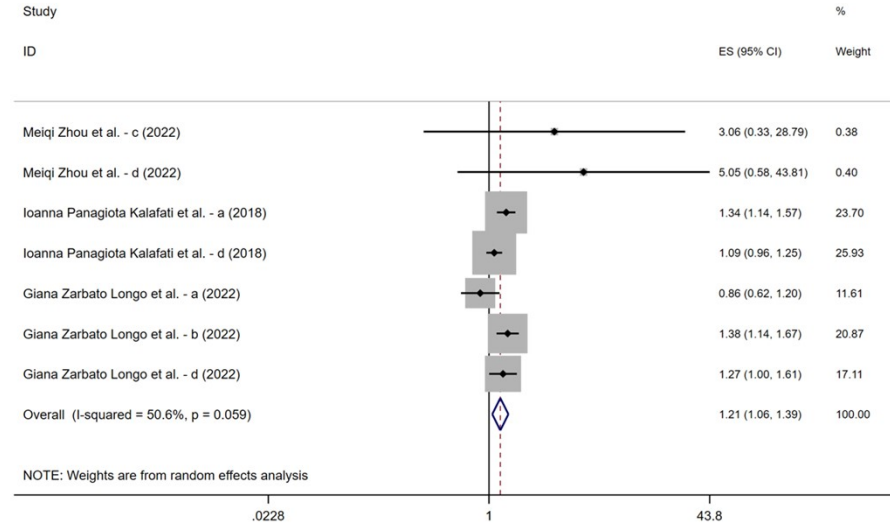


(B): The effect size is odds ratio

**Figure S4 Forest plot of animal-based dietary pattern and SUA.**

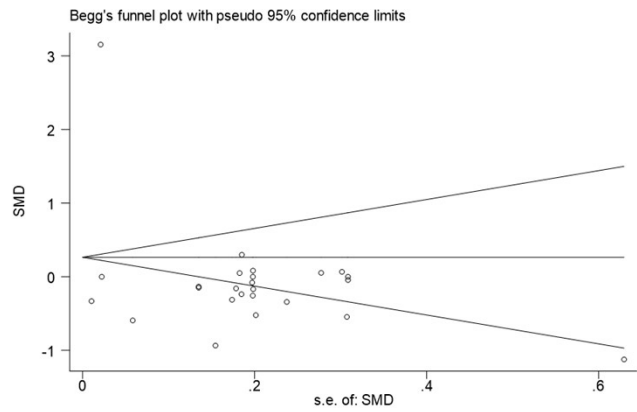


(A): The effect size is mean difference

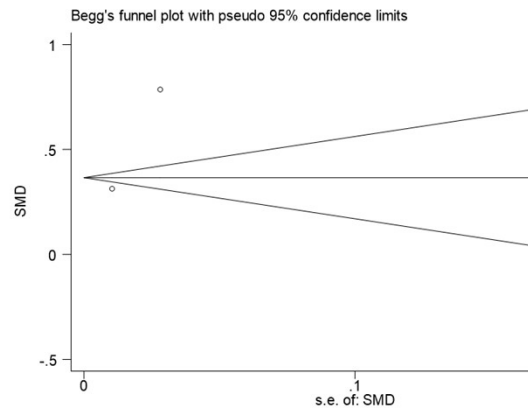


(B): The effect size is odds ratio

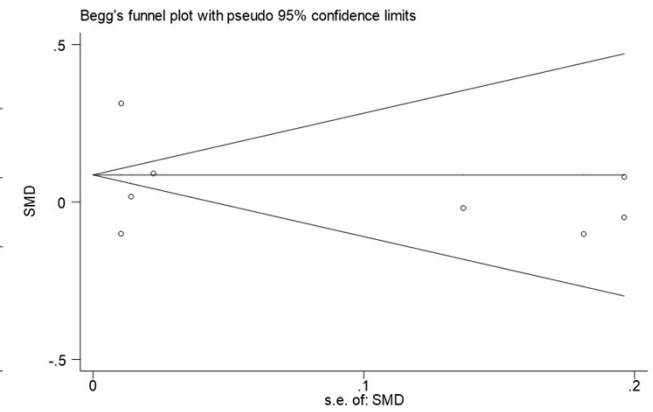
**Figure S5** Forest plot of mixed dietary pattern and SUA.



(A) Plant-based dietary pattern

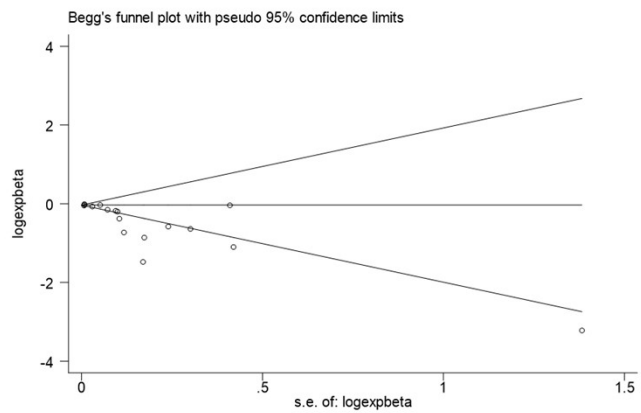


(B) Animal-based dietary pattern

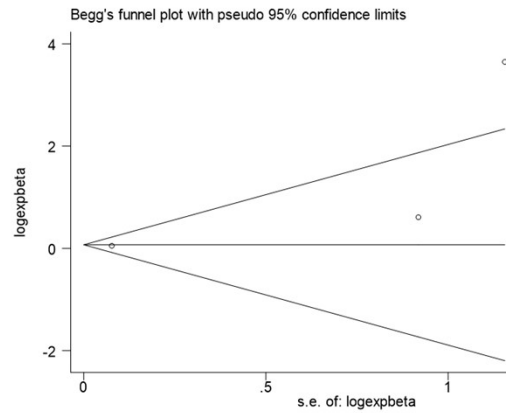


(C) Mixed dietary pattern

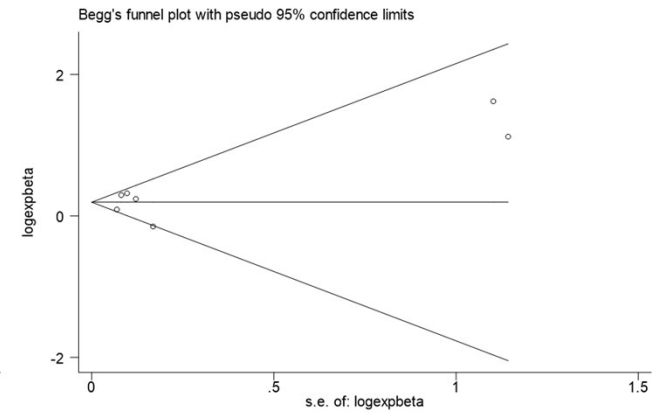
**Figure S6** Funnel plot for the association between animal-based dietary pattern and SUA (effect value: mean difference) .



(A) Plant-based dietary pattern

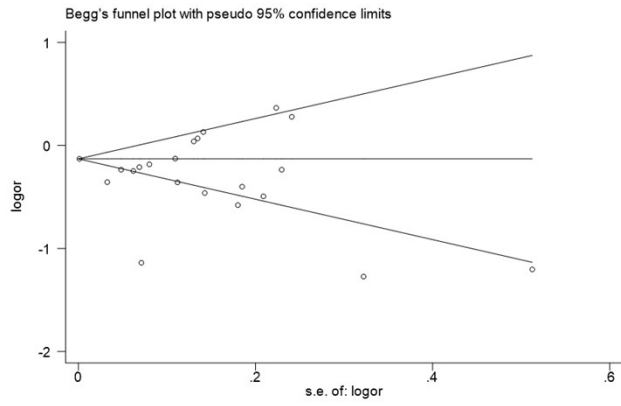


(B) Animal-based dietary pattern

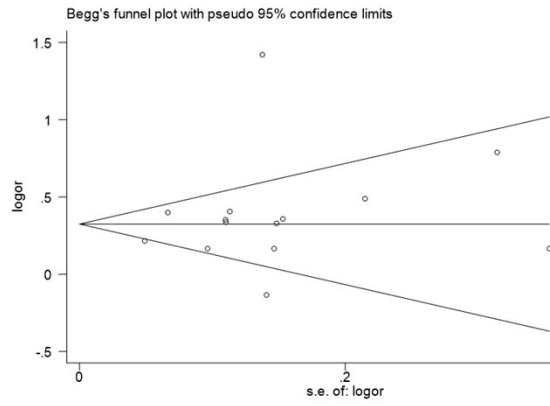


(C) Mixed dietary pattern

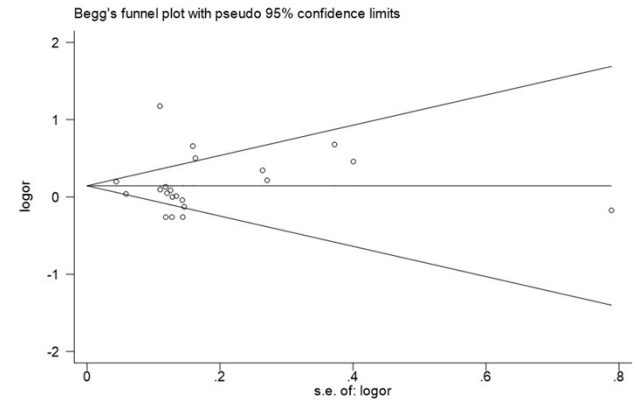
**Figure S7** Funnel plot for the association between dietary patterns and SUA (effect value: coefficient).



(A) Plant-based dietary pattern



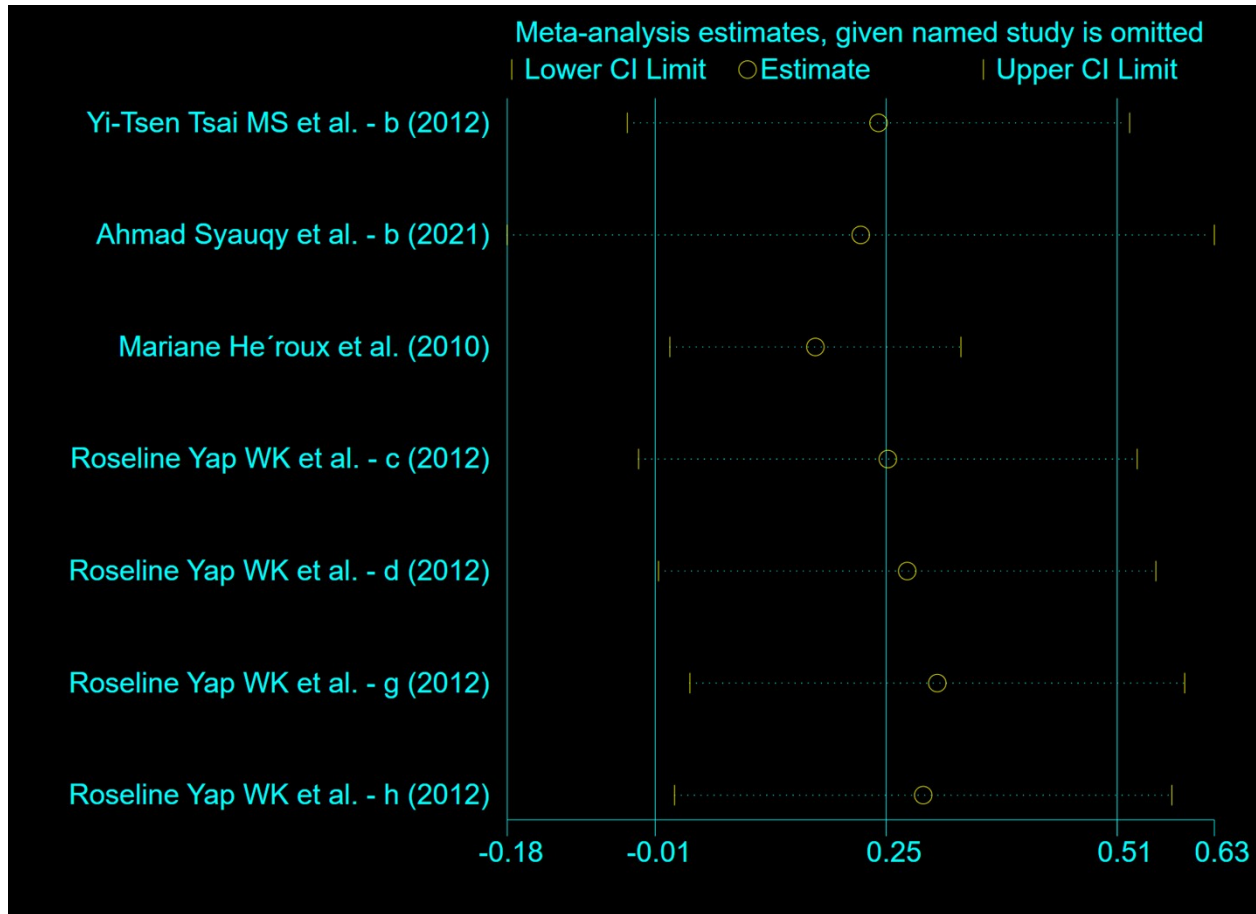
(B) Animal-based dietary pattern



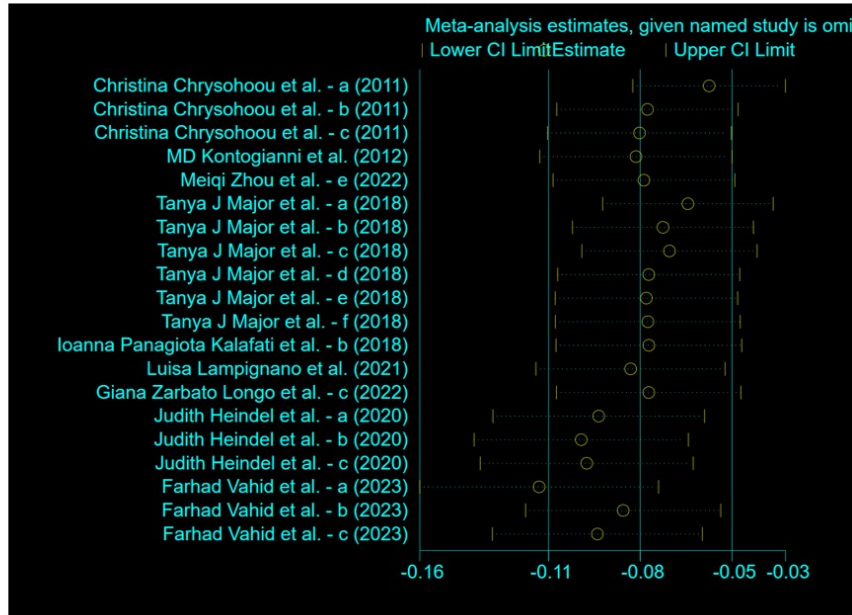
(C) Mixed dietary pattern

**Figure S8** Funnel plot for the association between dietary patterns and hyperuricemia (effect value: odds ratio).

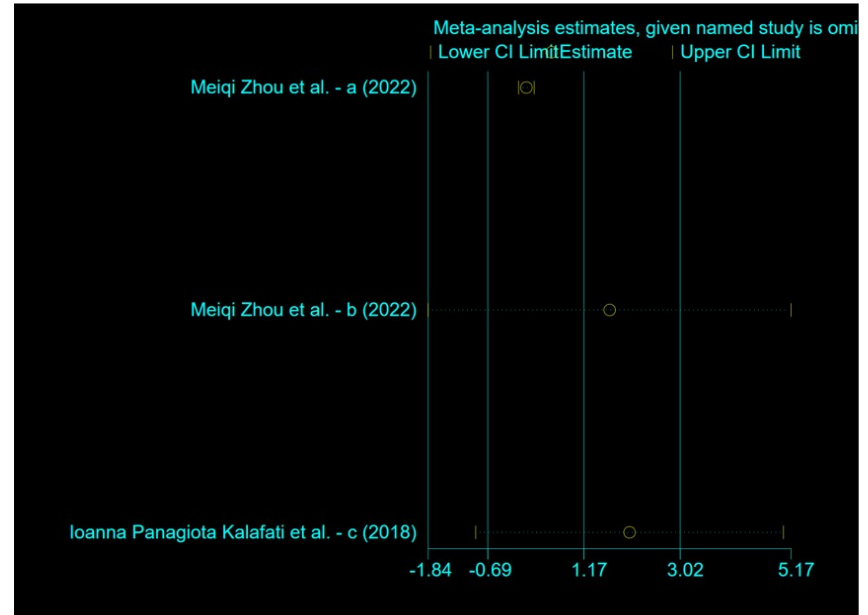




**Figure S9** Influence analysis for the association between animal-based dietary pattern and SUA (effect value: mean difference).

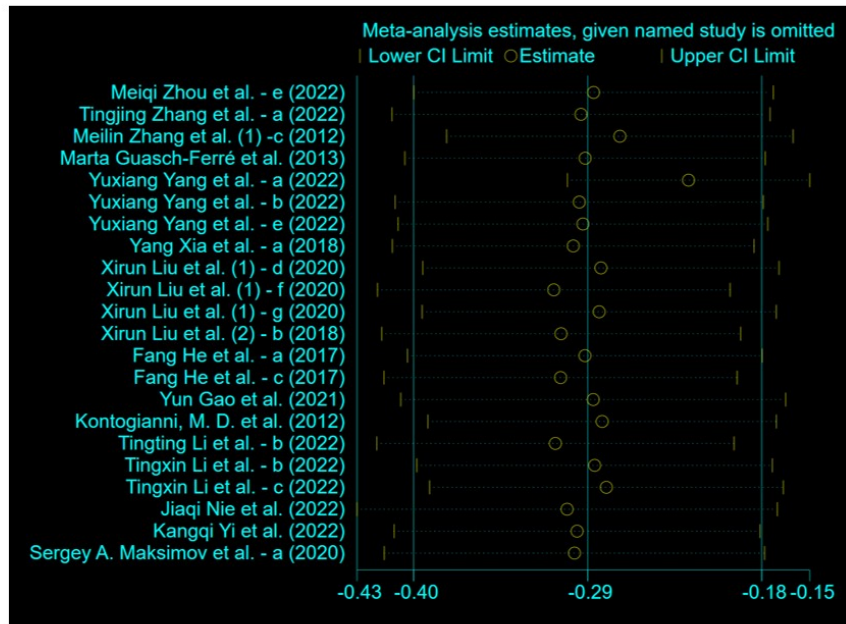


(A) Plant-based dietary pattern with SUA.

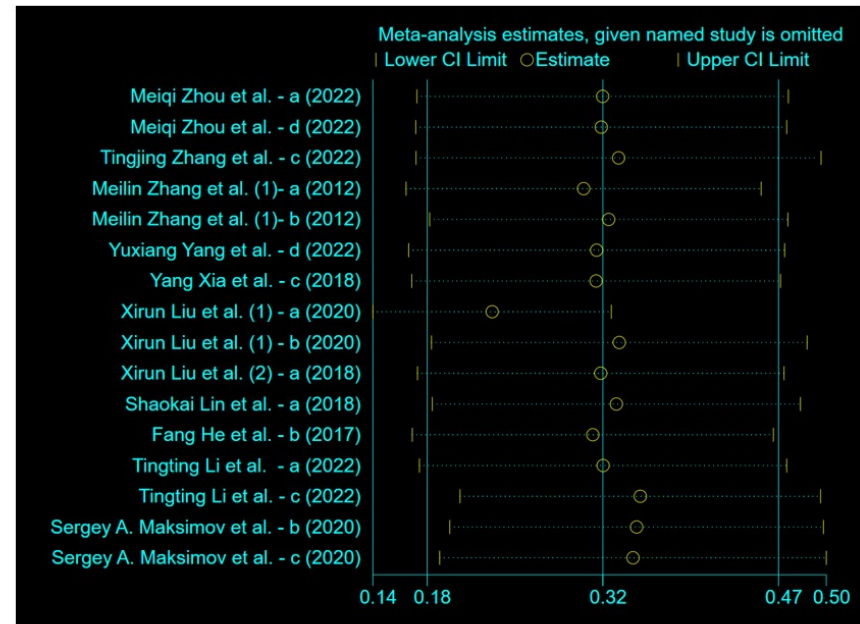


(B) Animal-based dietary pattern with SUA.

**Figure S10** Influence analysis for the association between dietary patterns and SUA (effect value: odds ratio).



(A) Plant-based dietary pattern with hyperuricemia.

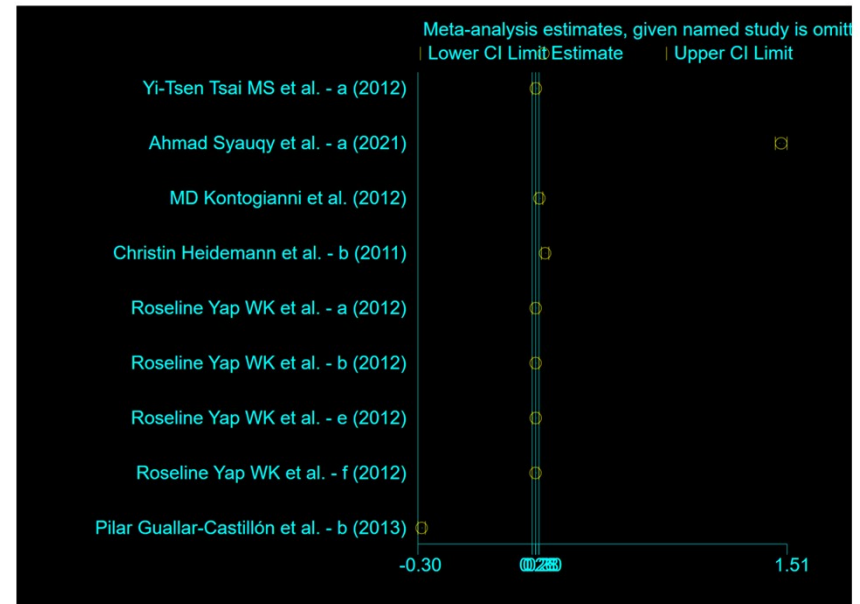


(B) Animal-based dietary pattern with hyperuricemia.

**Figure S11** Influence analysis for the association between dietary patterns and hyperuricemia (effect value: odds ratio).

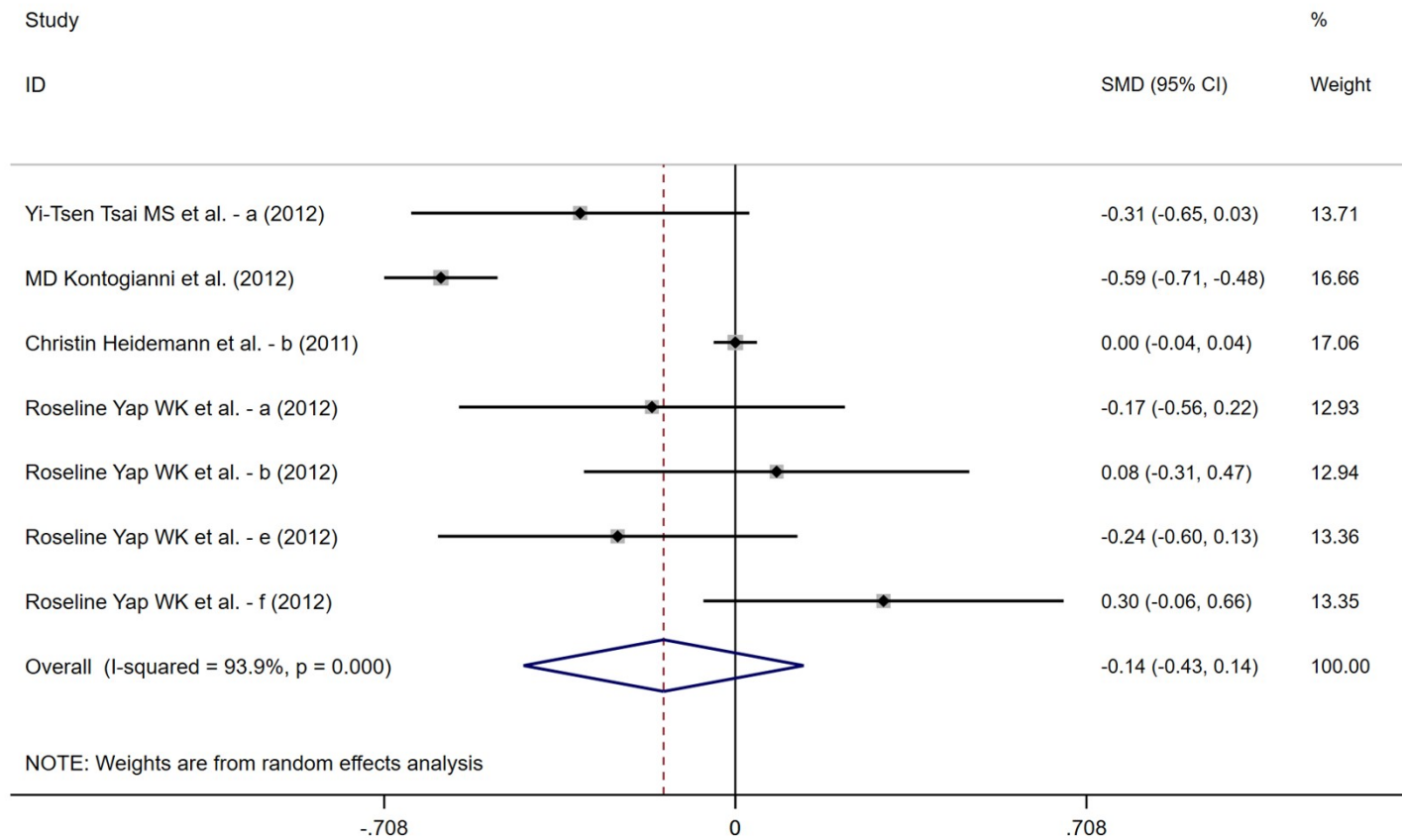


(A) Plant-based dietary pattern with SUA in interventional studies.



(B) Plant-based dietary pattern with SUA in cross-sectional studies.

**Figure S12** Influence analysis for the association between plant-based dietary pattern and SUA (effect value: mean difference).



**Figure S13** Forest plot of plant-based dietary pattern and SUA in cross-sectional studies (excluded studies of Pilar Guallar-Castillón et al. and Ahmad Syauqy et al).