

Table S1. Risk of multiple myeloma in relation to pre-diagnostic circulating levels of total adiponectin, high molecular weight (HMW) adiponectin, and leptin in the PLCO Cancer Screening Trial, overall and stratified by time from blood collection to patient diagnosis^a

Analyte ^b	Overall		≤7.91 years		>7.91 years	
	MM patients / Controls	OR (95% CI)	MM patients / Controls	OR (95% CI)	MM patients / Controls	OR (95% CI)
<i>Total adiponectin</i>						
Q1	56/87	1.0 (Ref)	31/48	1.0 (Ref)	25/39	1.0 (Ref)
Q2	43/87	0.72 (0.42-1.22)	23/41	0.87 (0.41-1.84)	20/46	0.65 (0.30-1.39)
Q3	40/87	0.64 (0.38-1.09)	14/45	0.48 (0.22-1.01)	26/42	0.83 (0.39-1.77)
Q4	35/87	0.49 (0.26-0.93)	19/40	0.62 (0.26-1.51)	16/47	0.40 (0.15-1.03)
Q4 _{75-87.4}	21/43	0.60 (0.30-1.19)	11/21	0.67 (0.26-1.72)	10/22	0.54 (0.20-1.49)
Q4 _{87.5-100}	14/44	0.33 (0.14-0.79)	8/19	0.51 (0.15-1.72)	6/25	0.22 (0.06-0.83)
P _{trend} ^c		0.03		0.19		0.09
Continuous ^d		0.73 (0.55-0.97)		0.78 (0.52-1.16)		0.68 (0.46-1.02)
<i>HMW adiponectin</i>						
Q1	55/87	1.0 (Ref)	28/46	1.0 (Ref)	27/41	1.0 (Ref)
Q2	49/87	0.85 (0.52-1.39)	28/45	1.04 (0.53-2.04)	21/42	0.71 (0.34-1.48)
Q3	37/87	0.58 (0.34-1.00)	12/41	0.45 (0.20-1.00)	25/46	0.69 (0.32-1.46)
Q4	33/87	0.44 (0.23-0.85)	19/42	0.58 (0.24-1.42)	14/45	0.32 (0.12-0.85)
Q4 _{75-87.4}	20/43	0.53 (0.26-1.08)	11/23	0.61 (0.23-1.59)	9/20	0.45 (0.16-1.27)
Q4 _{87.5-100}	13/44	0.32 (0.14-0.75)	8/19	0.54 (0.18-1.65)	5/25	0.18 (0.05-0.67)
P _{trend} ^c		0.01		0.18		0.03
Continuous ^d		0.71 (0.53-0.96)		0.80 (0.53-1.22)		0.63 (0.40-0.98)
<i>Leptin</i>						
Q1	37/87	1.0 (Ref)	18/39	1.0 (Ref)	19/48	1.0 (Ref)
Q2	49/87	1.36 (0.79-2.36)	21/40	1.17 (0.50-2.73)	28/47	1.53 (0.75-3.13)
Q3	44/87	1.22 (0.71-2.10)	24/46	1.15 (0.52-2.51)	20/41	1.26 (0.59-2.68)
Q4	44/87	1.24 (0.66-2.32)	24/49	1.07 (0.42-2.70)	20/38	1.40 (0.60-3.30)
Q4 _{75-87.4}	20/43	1.16 (0.56-2.37)	7/20	0.78 (0.25-2.45)	13/23	1.49 (0.59-3.82)
Q4 _{87.5-100}	24/44	1.34 (0.64-2.81)	17/29	1.34 (0.48-3.76)	7/15	1.26 (0.42-3.75)
P _{trend} ^c		0.78		1.0		0.70
Continuous ^d		1.03 (0.84-1.26)		1.00 (0.78-1.28)		1.10 (0.78-1.57)

Abbreviations: MM, multiple myeloma; OR, odds ratio; CI, confidence interval

^a Estimated using conditional logistic regression models with matching on age (5 year categories), sex, race, date of phlebotomy (3 month categories), time of day of phlebotomy (AM, PM) and study year of specimen collection.

^b Quartiles were assigned based on the distribution among controls as follows: total adiponectin, Q1 \leq 6421.55 ng/mL, Q2 6421.56-9994.96 ng/mL, Q3 9994.97-14766.43 ng/mL, Q4 $>$ 14766.43 ng/mL; HMW adiponectin, Q1 \leq 3380.97 ng/mL, Q2 3380.98-6092.59 ng/mL, Q3 6092.60-9744.70 ng/mL, Q4 $>$ 9744.70 ng/mL; leptin, Q1 \leq 4907.0 pg/mL, Q2 4907.1-9239.2 pg/mL, Q3 9239.3-19968.7 pg/mL, Q4 $>$ 19968.7 pg/mL.

^c Values for trend tests were assigned using the within-quartile medians.

^d Odds ratio corresponding to a change in analyte levels of the interquartile range.

Table S2. Risk of multiple myeloma in relation to circulating adipokine levels, stratified by sex^a

Analyte ^b	Women		Men	
	MM patients / Controls	OR (95% CI)	MM patients / Controls	OR (95% CI)
<i>Total adiponectin</i>				
Q1	20/31	1.0 (Ref)	29/56	1.0 (Ref)
Q2	17/31	0.80 (0.33-1.90)	43/56	1.39 (0.77-2.51)
Q3	13/31	0.58 (0.23-1.46)	25/56	0.86 (0.45-1.62)
Q4	12/31	0.51 (0.19-1.37)	15/56	0.49 (0.23-1.05)
<i>P</i> _{trend} ^c		0.17		0.02
Continuous ^d		0.79 (0.52-1.20)		0.71 (0.52-0.98)
<i>HMW adiponectin</i>				
Q1	20/31	1.0 (Ref)	28/56	1.0 (Ref)
Q2	18/31	0.86 (0.36-2.08)	44/56	1.51 (0.83-2.76)
Q3	11/31	0.51 (0.20-1.29)	20/56	0.73 (0.38-1.42)
Q4	13/31	0.57 (0.22-1.48)	20/56	0.71 (0.35-1.45)
<i>P</i> _{trend} ^c		0.18		0.07
Continuous ^d		0.79 (0.52-1.21)		0.70 (0.50-0.97)
<i>Leptin</i>				
Q1	17/31	1.0 (Ref)	26/56	1.0 (Ref)
Q2	17/31	0.97 (0.42-2.24)	30/56	1.14 (0.62-2.10)
Q3	10/31	0.62 (0.25-1.54)	26/56	1.00 (0.52-1.93)
Q4	18/31	1.06 (0.44-2.56)	30/56	1.15 (0.60-2.21)
<i>P</i> _{trend} ^c		0.95		0.74
Continuous ^d		1.08 (0.77-1.52)		0.98 (0.78-1.23)

Abbreviations: MM, multiple myeloma; OR, odds ratio; CI, confidence interval

^a Estimated using conditional logistic regression models with matching on age (5 year categories), race, date of phlebotomy (3 month categories), time of day of phlebotomy (AM, PM) and study year of specimen collection.

^b Quartiles were assigned based on the sex-specific distributions among controls. For women, quartile assignments were as follows: total adiponectin, Q1 ≤10579.81 ng/mL, Q2 10579.82-15333.45 ng/mL, Q3 15333.46-20335.47 ng/mL, Q4 >20335.47 ng/mL; HMW adiponectin, Q1 ≤6521.42 ng/mL, Q2 6521.43-10338.91 ng/mL; Q3 10338.92-13707.09 ng/mL, Q4 >13707.09 ng/mL; leptin, Q1 ≤11811.5 pg/mL, Q2 11811.6-22754.7 pg/mL, Q3 22754.8-34080.5 pg/mL, Q4 >34080.5 pg/mL. For men, quartile assignments were as follows: total adiponectin, Q1 ≤5245.33 ng/mL, Q2 5245.34-8047.71 ng/mL, Q3 8047.72-11067.95 ng/mL, Q4 >11067.95 ng/mL; HMW adiponectin, Q1 ≤2501.91 ng/mL, Q2 2501.92-4673.29 ng/mL; Q3 4673.30-6705.15 ng/mL, Q4 >6705.15 ng/mL; leptin, Q1 ≤3845.2 pg/mL, Q2 3845.3-6908.0 pg/mL, Q3 6908.1-11886.5 pg/mL, Q4 >11886.5 pg/mL.

^c Values for trend tests were assigned using the within-quartile medians.

^d Odds ratio corresponding to a change in analyte levels of the interquartile range.