## **Supplementary Data**

Table 1 AD, MCI and HC demographic and clinical characteristics by MeDi score tertile

Characteristics	Low Tertile	Middle Tertile	High Tertile	P Value <sup>a</sup>
	(MeDi Score 0-3; n=289)	(MeDi Score 4-5; n=428)	(MeDi Score 6-9; n=253)	)
Age, years; mean (s.d.)	72.77 (8.09)	71.16 (7.35)	69.57 (6.80)	0.000
Gender, men; no. (%)	117 (40)	179 (42)	111 (44)	0.726
Education ≤ 12 years; no. (%)	145 (50)	222 (52)	110 (43)	0.098
MMSE; mean (s.d.)	26 (4.98)	27 (4.37)	28 (3.18)	0.000
Presence of APOE ε4 allele; no. (%)	105 (36)	139 (32)	87 (34)	0.563
Energy Intake, Kcal; mean (s.d.)	1657 (630)	1719 (616)	1696 (531)	0.393
Body mass index; mean (s.d.) <sup>b</sup>	25.75 (3.80)	26.28 (4.37)	26.41 (4.41)	0.058
Smoking; no. (%)				
Past	143 (49)	184 (43)	117 (46)	0.228
Current	7 (2)	12 (3)	10 (4)	0.555
Country of Birth, Australian; no. (%)	204 (71)	308 (72)	175 (69)	0.737
Diabetes; no. (%)°	21 (7)	34 (8)	21 (8)	0.900
Hypertension; no. (%)°	9 (41)	169 (39)	99 (39)	0.866
Angina; no. (%)°	29 (10)	20 (5)	21 (8)	0.018
Heart Attack; no. (%)°	15 (5)	17 (4)	18 (7)	0.201
Stroke; no. (%)°	12 (4)	11 (3)	6 (2)	0.662

Abbreviations: AD, Alzheimer's disease; MCI, mild cognitive impairment; HC, healthy control; MeDi, Mediterranean diet; AIBL, Australian Imaging, Biomarkers and Lifestyle Study of Ageing; MMSE, Mini-Mental State Examination; APOE, apolipoprotein E; BMI, body mass index.

<sup>a</sup>Bold indicates statistical significance (p<0.05); Characteristics compared using analysis of variance for continuous variables and  $\chi^2$  for categorical variables. <sup>b</sup>BMI is calculated as weight in kilograms divided by height in meters squared. <sup>c</sup>History of diabetes, hypertension, angina, heart attack or stroke.

Table 2 HC demographic and clinical characteristics by MeDi score tertile

Characteristics	Low Tertile	Middle Tertile	High Tertile	P Value <sup>a</sup>
	(MeDi Score 0-3; n=187)	(MeDi Score 4-5; n=319)	(MeDi Score 6-9; n=217)	
Age, years; mean (s.d)	70.80 (7.56)	70.24 (7.07)	68.76 (6.05)	0.007
Gender, men; no. (%)	82(44)	133 (42)	88 (41)	0.795
Education ≤ 12 years; no. (%)	86 (46)	157 (49)	92 (42)	0.297
MMSE; mean (s.d)	29 (1.20)	29 (1.19)	29 (1.18)	0.628
Presence of APOE ε4 allele; no. (%)	42 (22)	77 (24)	67 (31)	0.107
Energy Intake, Kcal; mean (s.d)	1686 (657)	1688 (593)	1699 (539)	0.971
BMI; mean (s.d) <sup>b</sup>	26.17 (3.68)	26.57 (4.30)	26.50 (4.48)	0.571
Smoking; no. (%)				
Past	93 (26)	130 (41)	96 (44)	0.145
Current	5 (3)	11 (3)	9 (4)	0.721
Country of Birth, Australian; no. (%)	138 (74)	231 (72)	150 (69)	0.550
Diabetes; no. (%) <sup>c</sup>	11 (9)	22 (7)	18 (8)	0.633
Hypertension; no. (%) <sup>c</sup>	76 (41)	129 (40)	87 (40)	0.993
Angina; no. (%) <sup>c</sup>	12 (6)	14 (4)	17 (8)	0.242
Heart Attack; no. (%)°	9 (5)	12 (4)	12 (6)	0.618
Stroke; no. (%) <sup>c</sup>	3 (2)	7 (2)	4 (2)	0.891

Abbreviations: AD, Alzheimer's disease; MCI, mild cognitive impairment; HC, healthy control; MeDi, Mediterranean diet; AIBL, Australian Imaging, Biomarkers and Lifestyle Study of Ageing; MMSE, Mini-Mental State Examination; APOE, apolipoprotein E; BMI, body mass index.

<sup>a</sup>Bold indicates statistical significance (p<0.05); Characteristics compared using analysis of variance for continuous variables and  $\chi^2$  for categorical variables. <sup>b</sup>BMI is calculated as weight in kilograms divided by height in meters squared. <sup>c</sup>History of diabetes, hypertension, angina, heart attack or stroke.

When the MeDi tertiles are analysed with all three classification groups included, age, mean MMSE score and history of angina are significantly different between the tertiles (Table 1). When healthy controls are evaluated independently of AD and MCI subjects, age is the only significantly different characteristic between the MeDi tertiles (Table 2).