Supplementary Material

Incidence of Alzheimer's Disease in Men with Late-Life Hypertension Is Ameliorated by *FOXO3* Longevity Genotype

Supplementary Table 1. The effect (HR and 95% CI) of late-life BP variables on incident all-cause dementia and Alzheimer's disease from stratified analyses (in which separate analyses were performed for each *FOXO3 rs2802292* genotype), adjusted for midlife hypertension.

		All cause dementia		Alzheimer's disease	
Genotype	**BP variable**	**HR (95% CI)***	***p***	**HR (95% CI)**	***p***
TG/*GG* (n=1,259)	HTN1	0.80 (0.60-1.07)	0.14	0.68 (0.49-0.95)	**0.024**
	HTN2	0.77 (0.59-0.99)	**0.044**	0.65 (0.48-0.88)	**0.0052**
	SBP≥140	0.85 (0.65-1.09)	0.20	0.71 (0.53-0.96)	**0.027**
	SBP≥160	0.78 (0.60-1.00)	**0.049**	0.61 (0.45-0.83)	**0.0019**
	DBP≥90	0.70 (0.51-0.94)	**0.019**	0.53 (0.36-0.77)	**0.001**
	DBP≥95	0.63 (0.42-0.95)	**0.026**	0.52 (0.32-0.86)	**0.011**
TT (n=1,429)	HTN1	1.13 (0.86-1.48)	0.37	1.06 (0.77-1.46)	0.70
	HTN2	1.12 (0.89-1.41)	0.34	1.22 (0.93-1.60)	0.14
	SBP≥140	1.06 (0.84-1.33)	0.65	1.03 (0.79-1.36)	0.81
	SBP≥160	1.13 (0.89-1.44)	0.32	1.11 (0.83-1.48)	0.49
	DBP≥90	1.14 (0.87-1.51)	0.34	1.24 (0.90-1.70)	0.19
	DBP≥95	0.72 (0.46-1.14)	0.16	0.70 (0.40-1.22)	0.21

*HR and 95% CI of effect of blood pressure variables on incident all-cause dementia and Alzheimer's disease were estimated from the multivariate Cox models adjusted for baseline variables: age, education (years), *APOE* ε4, CASI score, BMI, plasma glucose, smoking (pack–year), alcohol drinking (ounces/month), physical activity index, and prevalent diabetes, CHD, stroke, depressive symptoms, and midlife BP variable that used the same definition as the late-life BP variable in the model.

Supplementary Table 2. Effect of *FOXO3* longevity genotype (*TG*/*GG*) on risk posed by hypertension diagnosed in midlife (T-HTN-ML) and of hypertension diagnosed in late life (T-HTN-LL) for all-cause dementia and of Alzheimer's disease.

			All-cause dementia (704)		**Alzheimer's disease (501)**	
Genotype	**BP variable**	**Reference**	**HR (95% CI)**	***p***	**HR (95% CI)**	***p***
TG/*GG* (n=1,224)	T-HTN-ML (n=479)	NMT (n=258)	1.23 (0.92-1.66)	0.16	1.10 (0.79-1.55)	0.56
	T-HTN-LL (n=487)	NMT (n=258)	0.92 (0.68-1.25)	0.59	0.79 (0.56-1.12)	0.19
	T-HTN-LL (n=487)	T-HTN-ML (n=479)	0.75 (0.59-0.95)	**0.017**	0.72 (0.54-0.96)	**0.025**
TT (n=1,387)	T-HTN-ML (n=539)	NMT (303)	1.45 (1.09-1.92)	0.01	1.29 (0.93-1.80)	0.13
	T-HTN-LL (545)	NMT (303)	1.21 (0.91-1.60)	0.18	1.17 (0.85-1.62)	0.33
	T-HTN-LL (545)	T-HTN-ML (n=539)	0.84 (0.66-1.05)	0.13	0.91 (0.69-1.20)	0.50

HR was estimated from multivariate Cox models adjusted for baseline variables: age, education (years), CASI score, prevalent stroke, and *APOE* ε4 genotype.

NMT, normotensive at both examination 3 and 4; T-HTN-ML, SBP/DBP ≥140/90 or on anti-hypertensives at examination 3 (1971–1975), hypertension diagnosed in midlife; T-HTN-LL, normotensive at examination 3 and SBP/DBP ≥140/90 or on anti-hypertensives at examination 4 (1991–1993), HTN diagnosed in late-life.

Supplementary Table 3. The effect of late-life BP variables on incident all-cause dementia and Alzheimer's disease from stratified analyses by *FOXO3* r*s2802292* genotypes, excluding incident all-cause dementia cases within 1.5 years of follow-up.

		All cause dementia		Alzheimer's disease	
Genotype	**BP variable**	**HR (95% CI)***	***p***	**HR (95% CI)**	***p***
TG/*GG* (n=1,240)	HTN1	0.85 (0.64-1.12)	0.24	0.72 (0.52-0.99)	**0.040**
	HTN2	0.82 (0.64-1.04)	0.096	0.69 (0.52-0.92)	**0.011**
	SBP≥140	0.81 (0.63-1.05)	0.11	0.68 (0.50-0.91)	**0.0096**
	SBP≥160	0.76 (0.59-0.98)	**0.037**	0.60 (0.44-0.82)	**0.0013**
	DBP≥90	0.76 (0.56-1.01)	0.062	0.58 (0.40-0.84)	**0.0038**
	DBP≥95	0.66 (0.44-0.99)	**0.044**	0.56 (0.34-0.92)	**0.022**
TT (n=1,395)	HTN1	1.12 (0.86-1.45)	0.39	1.09 (0.81-1.46)	0.59
	HTN2	1.06 (0.84-1.33)	0.62	1.13 (0.87-1.47)	0.37
	SBP≥140	1.06 (0.84-1.35)	0.60	1.04 (0.79-1.36)	0.80
	SBP≥160	1.14 (0.88-1.46)	0.32	1.08 (0.80-1.45)	0.61
	DBP≥90	1.22 (0.92-1.60)	0.17	1.29 (0.94-1.76)	0.12
	DBP≥95	0.71 (0.44-1.14)	0.16	0.71 (0.41-1.24)	0.23

*HR and 95% CI of effect of blood pressure variables on incident all–cause dementia and Alzheimer's disease were estimated from the multivariate Cox models adjusted for baseline variables: age, education (years), *APOE* ε4, CASI score, BMI, plasma glucose, smoking (pack–year), alcohol drinking (ounces/month), physical activity index, and prevalent diabetes, CHD, stroke, depressive symptoms.