Table S1. Database Search Terms

Database	Search terms	Results
AgeLine	AB ('multiple sclerosis' or 'ms' or 'demyelinating disease' or 'relapsing remitting') AND AB (smell and taste) OR AB olfact*	142
PubMed	(((((olfact*[Title/Abstract]) OR ("olfactory perception" [MeSH Terms])) OR ("olfaction disorders"[MeSH Terms])) OR (smell[Title/Abstract])) AND (("multiple sclerosis"[MeSH Terms]) OR (multiple sclerosis[Title/Abstract]))	149
PsycInfo	('multiple sclerosis' or 'ms' or 'demyelinating disease' or 'relapsing remitting') AND (olfact* or smell)	237
CINAHL	('multiple sclerosis' or 'ms' or 'demyelinating disease' or 'relapsing remitting') AND (olfact* or smell)	64
Web of Science	TI=((multiple sclerosis or ms) AND (olfact* or smell))	174
Google Scholar	(multiple sclerosis) AND (olfaction OR olfaction disorder OR smell)	1852
MEDLINE	('multiple sclerosis' or 'MS').mp. and ('olfact*' or 'smell*').ab,ti. [mp=ti, ab, tx, ct, sh, ot, nm, hw, fx, kf, ox, px, rx, an, ui, sy]	1760
Embase	('multiple sclerosis'/exp OR 'ms' OR 'chariot disease' OR 'chronic progressive multiple sclerosis' OR 'disseminated sclerosis' OR 'insular sclerosis' OR 'multiple sclerosis' OR 'multiple sclerosis, chronic progressive' OR 'multiple sclerosis, relapsing-remitting' OR 'primary progressive multiple sclerosis' OR 'relapsing remitting multiple sclerosis' OR 'relapsing-remitting multiple sclerosis' OR 'sclerosis multiplex' OR 'sclerosis, disseminated' OR 'sclerosis, insular' OR 'sclerosis, multiple' OR 'secondary progressive multiple sclerosis') AND (olfact* OR 'smelling'/exp OR 'olfaction' OR 'olfactory acuity' OR 'olfactory analyzer' OR 'olfactory function' OR 'olfactory perception' OR 'olfactory reception' OR 'smelling')	2560

CINAHL, Cumulative Index to Nursing and Allied Health Literature.

Table S2. Study Qualities

Author	Year	Population, No.			Study length	Olfactory test
		RRMS	**PMS**	**Control**		
Doty[9]	1999	5[a]		-	18-20 mo	UPSIT
Uecker[11]	2017	16	4	-	3 y	Sniffin' Sticks and OEP
Ciurleo[10]	2018	28	-	-	3 y	OERP
Bsteh[12]	2018	55	-	-	24 wk	Sniffin' Sticks
Bsteh[7]	2019	128	13	30	3 y	Sniffin' Sticks
Bsteh[14]	2019	80	-	30	3 y	Sniffin' Sticks
Bsteh[13]	2020	55	-	-	24 wk	Sniffin' Sticks
		128	13	30	3 y	
Bsteh[8]	2020	33	4	18	2 y	Sniffin' Sticks
da Silva[15]	2020	116	33	-	10 y	BSIT

BSIT, Brief Smell Identification Test; OEP, olfactory evoked potential; OERP, olfactory event-related potential; PMS, progressive multiple sclerosis; RRMS, relapsing-remitting multiple sclerosis; UPSIT, University of Pennsylvania Smell Identification Test.
[a]Specific diagnosis not disclosed.

Table S3. Clinical Markers Used

Author, y	Relapse		MRI	EDSS	MSSS and ARMSSS	Duration	INL	sNfL	Death
	O	**TNR**							
Doty, 1999			X						
Uecker, 2017		X		X		X			
Ciurleo, 2018		X		X		X			
Bsteh, 2018	X								
Bsteh, 2019[7]	X								
Bsteh, 2019[14]								X	
Bsteh, 2020[13]	X	X					X		
Bsteh, 2020[8]			X						
da Silva, 2020					X				X

ARMSSS, Age-Related Multiple Sclerosis Severity Score; EDSS, Expanded Disability Status Scale; INL, inner nuclear layer; MRI, magnetic resonance imaging; MSSS, Multiple Sclerosis Severity Score; O, occurrence; sNfL, serum neurofilament light chain; TNR, total number of relapses.