Supplementary Table S1. Exclusion Criteria for healthy controls and UHR subjects

Sites	London	Basel	Melbourne	Munich
Exclusion criteria for healthy controls				
Past or present diagnosis of schizophrenia spectrum or bipolar disorder, as well as borderline personality disorder, delirium, dementia, amnestic or other cognitive disorders, mental retardation, and psychiatric disorder due to a somatic factor, following DSM-IV criteria	x	x	x	x
Previous treatment with antipsychotics	x	x	x	x
Medical illness	x	x	x	x
Family history of psychiatric illness	x	x	x	x
Past or present inflammatory, traumatic, or epileptic diseases of the CNS	x	x	x	x
Alcohol or substance abuse or dependence	x	x	x	x
Pregnancy	x	x	x	x
Age below 18 years		x		
Exclusion Criteria for UHR subjects				
Past o present diagnosis of schizophrenia spectrum or bipolar disorder, as well as borderline personality disorder, delirium, dementia, amnestic or other cognitive disorders, mental retardation, and psychiatric disorder due to a somatic factor, following DSM-IV criteria	x	x	x	x
Alcohol or substance abuse or dependence	x	x	x	x
Past or present inflammatory, traumatic, or epileptic diseases of the CNS	x	x	x	x

		x	x	x
Previous treatment with antipsychotics for > 3 weeks		x	x	x
Age below 18 years		x		

Abbreviations: UHR, ultra high risk; CNS, central nervous system.

Supplementary Table S2. Inclusion Criteria for UHR subjects

Sites (Clinic)	London-(OASIS)-	Basel-(FEPSY)-	Melbourne-(PACE)	Munich-(FETZ)
Instruments	CAARMS, PANSS	BSIP, BPRS, SANS	CAARMS, BPRS, SANS	BSABS PANSS
Inclusion criteria				
Attenuated psychotic symptoms (APS) [*]	x	x	x	x
Brief limited intermittent psychotic symptoms (BLIPS) [*]	x	x	x	x
State + Trait risk factor[*]	1st degree relatives, Significant reduction in mental state or functioning (reduction in GAF_30) within the past year.	1st or 2nd degree relatives, defined number of risk factors, prodromes + marked deterioration in defined social roles.	1st degree relatives, Significant reduction in mental state or functioning (reduction in GAF_30) within the past year.	1st degree relatives, pre- or perinatal complication (reduction in GAF_30)

[*]APS; BLIPS, State + Trait risk factor according to Yung et al. (2005), (Yung *et al.* 2005).

Abbreviations: CAARMS, Comprehensive Assessment of ARMS (Yung *et al.* 2005); PANSS, Positive and Negative Symptom Scale (Kay *et al.* 1987); BPRS, Brief Psychiatric Rating Scale (Rhoades &Overall 1988); BSABS, Bonn Scale for Assessment of Prodromal Symptoms (Gross 1987); BSIP, Basel Screening Instrument for Psychosis (Riecher-Rossler *et al.* 2008); SANS, Scale

for the Assessment of Negative Symptoms (Andreasen 1989); GAF, Global Assessment of

Functioning (Endicott *et al.* 1976); OASIS, Outreach And Support In South London clinic; FEPSY,

Early detection of psychosis clinic; PACE, Personal Assessment and Crisis Evaluation clinic;

FETZ, Early Detection and Intervention Centre for Mental Crisis.

Supplementary Table S3. Socio-demographic characteristics of the study samples per site

Sites	Characteristics	HC	UHR-NT	UHR-T
London		47	44	12
Basel	Number of subjects	22	23	12
Melbourne		39	26	10
Munich		42	24	16
London		25.51 ± 4.4	24.14 ± 4.9	23.25 ± 4.1
Basel	Age (mean, SD)	23.00 ± 4.3	23.26 ± 5.8	24.58 ± 5.2
Melbourne		20.10 ± 2.3	20.04 ± 3.0	19.20 ± 2.6
Munich		24.48 ± 3.7	26.08 ± 6.1	23.38 ± 4.5
London		14/33	17/27	2/10
Basel	Gender (Female/Male)	9/13	10/13	3/9
Melbourne		14/25	11/15	4/6
Munich		14/28	11/13	4/12
	Ethnicity			
London	Caucasian	28/47	26/44	5/12
	Black	7/47	5/44	1/12
	Asian	6/47	2/44	0
	Mixed	6/47	11/44	6/12

Basel	Caucasian	22/22	23/23	12/12
	Black	0	0	0
	Asian	0	0	0
	Others	0	0	0
Melbourne	Caucasian	36/39	23/26	10/10
	Black	0	0	0
	Asian	3/39	3/26	0
	Others	0	0	0
Munich	Caucasian	42/42	24/24	16/16
	Black	0	0	0
	Asian	0	0	0
	Others	0	0	0
	Handedness			
London	Right	45/47	44/44	10/12
	Left	0	0	1/12
	Ambidextrous	2/47	0	1/12
Basel	Right	16/22	22/23	9/12
	Left	5/22	1/23	3/12
	Ambidextrous	1/22	0	0

Melbourne	Right	36/39	25/26	10/10
	Left	2/39	1/26	0
	Ambidextrous	1/39	0	0
Munich	Right	35/42	20/24	16/16
	Left	5/42	2/24	0
	Ambidextrous	2/42	2/24	0

Supplementary Table S4. Image acquisition

Site	Scanner	Field Strength	TR/TE (ms)	Slice Thickness (mm)	Voxel dimensions (mm)	Sequence
London	GE Signa	1.5 T	3000ms/40ms	1.5mm	0.86 x 0.86 x 1.5	3D-SPGR
Basel	Siemens	1.5 T	9.7ms/4ms	1.1mm	1.28 x 1 x 1	3D-SPGR
Munich	Siemens	1.5 T	11.6ms/4.9ms	1.5mm	0.45 x 0.45 x 1.5	3D-MPRAGE
Melbourne	GE Signa	1.5 T	14.3ms/3.3ms	1.5mm	0.937 x 0.937 x 1.5	3D-SPGR

Scanners pulse sequences, slice, location.

Supplementary Table S5. Clinical Measures London site

	UHR_NT(n=44) Mean (±SD)	UHR_T(n=12) Mean (±SD)	Significance
CAARMS-Abnormalities of Thought Content	3.48±1.38	3.50±1.06	F=0.002; df=1; p=0.964
CAARMS-Perceptual Abnormalities	2.50±1.90	2.75±2.31	F=0.108; df=1; p=0.743
CAARMS-Speech Abnormalities	1.71±1.45	3.00±1.69	F=5.003; df=1; p=0.030
PANSS_Negative	12±4.46	14.63±5.63	F=2.137; df=1; p=0.150
PANSS_Positive	10.81±3.9	11.25±4.26	F=0.083; df=1; p=0.775
PANSS_General	25.48±8.15	30.25±11.67	F=2.046; df=1; p=0.159
GAF	58.12±10.15	46.50±10.85	F=8.616; df=1; p=0.005
IQ (WAIS)*	99±11.49	94±7.47	F=1.412; df=1; p=0.241

* Information was available for a subset of the whole sample (i.e. UHR-NT=39; UHR-T=8)

Abbreviations: UHR-T, ultra high risk with disease transition; UHR-NT, ultra high risk without disease transition; CAARMS, Comprehensive Assessment of At-Risk Mental State (Yung *et al.* 2005); PANSS, Positive and Negative Symptom Scale (Kay *et al.* 1987); GAF, Global Assessment of Functioning (Endicott *et al.* 1976); WAIS, Wechsler Adult Intelligence Scale (Wechsler 1997).

Supplementary Table S6. Clinical Measures Basel site

	UHR_NT(n=23) Mean (±SD)	UHR_T(n=12) Mean (±SD)	Significance
BPRS	37.09±6.84	40.83±11.45	F=1.475; df=1; p=0.233
SANS	7.04±4.50	9.75±5.81	F=2.327; df=1; p=0.137
IQ (LPS)*	111±16.92	115±11.57	F=0.366; df=1; p=0.550
IQ (MWT)**	106±15.76	112±11.59	F=1.320; df=1; p=0.260

* Information was available for a subset of the whole sample (i.e. UHR-NT=19; UHR-T=12)

** Information was available for a subset of the whole sample (i.e. UHR-NT=18; UHR-T=12)

Abbreviations: UHR-T, ultra high risk with disease transition; UHR-NT, ultra high risk without disease transition; BPRS, Brief Psychiatric Rating Scale (Rhoades &Overall 1988); SANS, Scale for the Assessment of Negative Symptoms (Andreasen 1989); LPS, German scale for assessing non-verbal IQ; MWT, German scale for assessing verbal IQ (Lehrl *et al.* 1995).

Supplementary Table S7. Clinical Measures Munich site

	UHR_NT(n=24) Mean (±SD)	UHR_T(n=16) Mean (±SD)	Significance
PANSS_Negative*	12.05±5.15	16.25±8.97	F=2.379; df=1; p=0.136
PANSS_Positive*	9.74±2.28	12.88±4.45	F=5.960; df=1; p=0.022
PANSS_General*	28.42±6.34	29.25±11.14	F=0.061; df=1; p=0.209
IQ (MWT)**	111±13.87	104±17.22	F=1.535; df=1; p=0.226

* Information was available for a subset of the whole sample (i.e. UHR-NT=19; UHR-T=8)

** Information was available for a subset of the whole sample (i.e. UHR-NT=18; UHR-T=11)

Abbreviations: UHR-T, ultra high risk with disease transition; UHR-NT, ultra high risk without disease transition; PANSS, Positive and Negative Symptom Scale (Kay *et al.* 1987); MWT, German scale for assessing verbal IQ (Lehrl *et al.* 1995).

Supplementary Table S8. Clinical Measures Melbourne site

	UHR_NT(n=26) Mean (±SD)	UHR_T(n=10) Mean (±SD)	Significance
CAARMS- Abnormalities of Thought Content	1.69±1.15	2.80±0.63	F=8.111; df=1; p=0.007
CAARMS-Perceptual Abnormalities	2.15±1.54	2.50±1.78	F=0.335; df=1; p=0.567
CAARMS-Speech Abnormalities	2.12±1.03	2.20±1.31	F=0.042; df=1; p=0.840
BPRS	25.52±11.86	25.33±10.97	F=0.002; df=1; p=0.967
SANS	31.93±18.32	32.78±13.59	F=0.016; df=1; p=0.899
Premorbid IQ (NART)*	91±11.17	98±10.32	F=0.175; df=1; p=0.175

[*] Information was available for a subset of the whole sample (i.e. UHR-NT=17; UHR-T=6)

Abbreviations: UHR-T, ultra high risk with disease transition; UHR-NT, ultra high risk without disease transition; CAARMS, Comprehensive Assessment of At-Risk Mental State (Yung *et al.* 2005); BPRS, Brief Psychiatric Rating Scale (Rhoades &Overall 1988); SANS, Scale for the Assessment of Negative Symptoms (Andreasen 1989); NART, National Adult Reading Test (Nelson &O'Connell 1978).

Supplementary Fig. S1. Mask
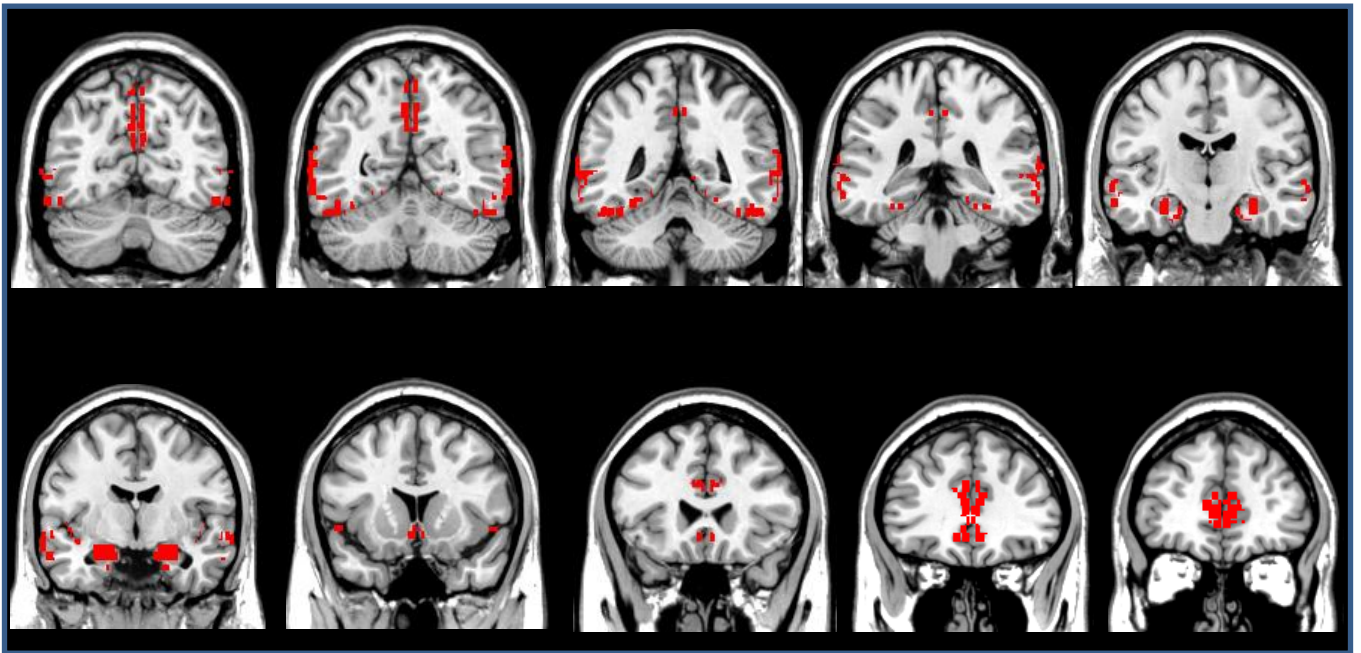
Mask used for the regions of interest analyses. The mask includes the following cortical areas:

parahippocampal gyrus, inferior frontal gyrus, anterior cingulate, superior temporal gyrus, inferior

parietal gyrus and the precuneus. MNI coordinates (y): -66, -56, -46, -36, -16, -6, 14, 24, 34, 44.

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