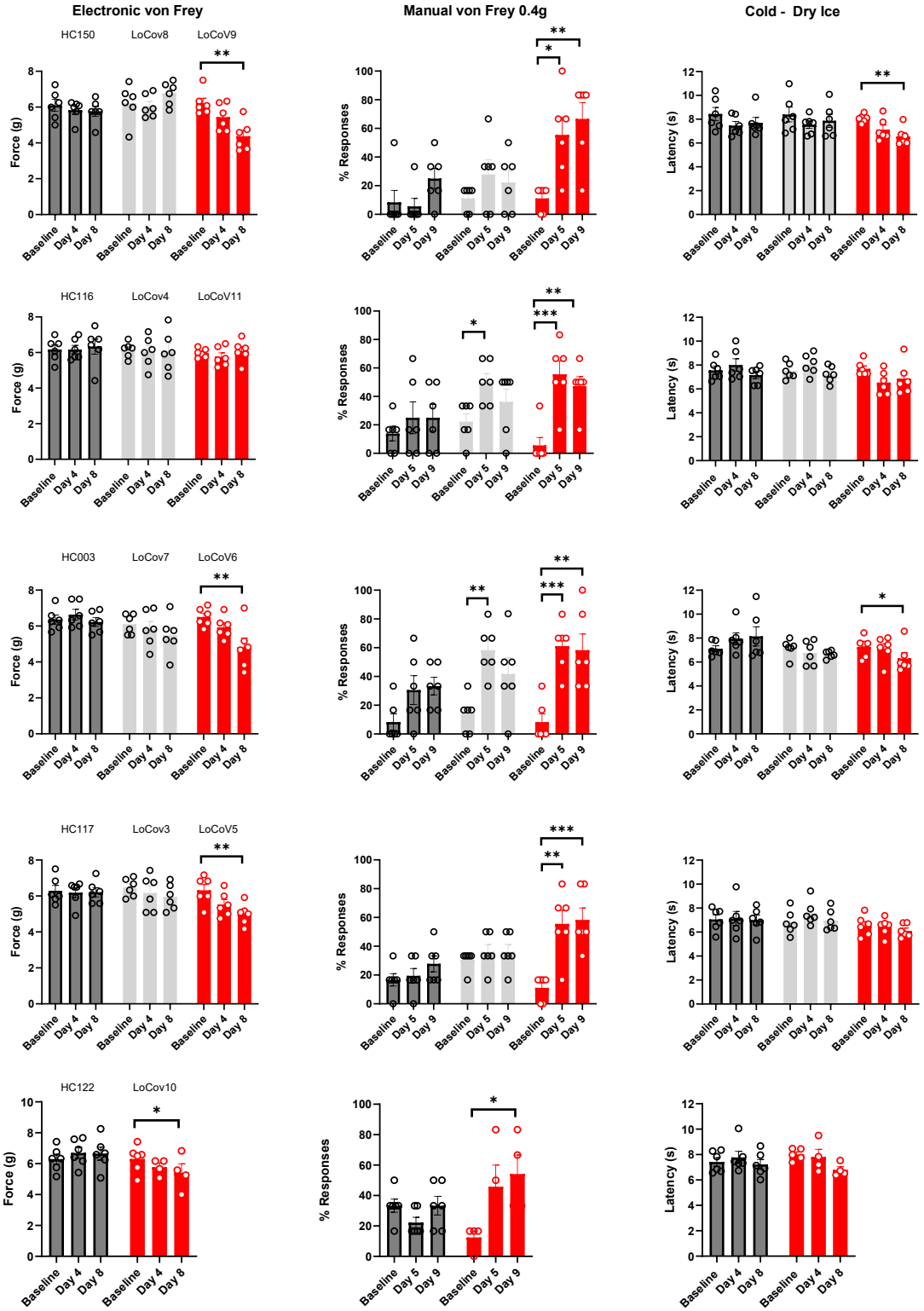
Supplementary Figure 1. Effects of IgG from PCS and healthy control individuals on mechanical and cold sensitivities: individual experiments



Measurements made before and on days 4/5 and 8/9 after IgG administration. (HC IgG (dark grey), PCS-F IgG (light grey), PCS-PF IgG (red). Results are presented as mean ± SEM, and statistical significance was defined as $p < 0.05$ ($p < 0.05$, **$p < 0.01$, ***$p < 0.001$).*

Supplementary Table 1. Key features of the Cardiff, UK patient cohort.

Number of Patients	208
Female (%)	162 (74.3)
Male (%)	56 (25.7)
Mean Age (SD)	48.3 (11.9)
Age Range	20-83
BMI (SD)	31.1 (14.8)
BMI >30 n (%)	101 (46.3)
Race (%)	
Caucasian	195 (89.4)
Black	2 (0.01)
Mixed	2 (0.01)
Asian	12 (5.5)
Other	7 (3.2)
General Health	
Mean EQ-VAS (SD)	53.4 (19.5)
Fatigue	
FSS >36 n (%)	188/214 (87.9)
Anxiety	
VAS >4 n (%)	135/209 (64.6)
Depression	
VAS>4 n (%)	93/218 (44.5)

Details of patients recruited with at least one symptom ascribed to prior Sars-Cov-2 infection. EQ-VAS (quality of life) scores measured on a scale of 0-100 (worst imaginable health – best imaginable health). FSS fatigue score scale 0-63 (none – worst). Anxiety and Depression VAS scores on a scale of 0-10 (none – worst).

Supplementary Table 2. Details of patients studied with microneurography

Sex	Age	Symptoms									Date of infection	Severity*	Microneurography findings
		Neurology					Dysautonomia	Fatigue	Gastro[3]	Uro[4]			
		Burning pain	Deep aching pain/FMS[1]	Paraesthesia	Numbness	Headaches/ Migraines							
F	28	N	Y (widespread)	N	N	N	Y (confirmed PoTS[2])	Y	Y	N	Apr 2020	Mild	Normal nociceptors
F	48	N	Y (widespread)	N	N	Y	Y	N	Y	Y	May 2023	Mild	Normal nociceptors
F	44	Y (upper & lower limbs & pelvic area)	Y (widespread)	Y (upper & lower limbs & pelvic area)	N	N	N	Y	N	Y	Nov 2021	Mild	Spontaneous activity
F	37	Y (upper & lower limbs)	N	N	N	Y	Y (confirmed PoTS[2])	Y	Y	Y	Mar 2020	Mild	Spontaneous activity
F	51	Y (lower limbs)	N	N	N	N	Y	Y	N	Y	Apr 2020	Mild	Normal nociceptors
F	59	N	Y (widespread)	N	N	N	Y (confirmed PoTS[2])	Y	Y	Y	Nov 2023	Mild	Spontaneous activity

1. FMS: Fibromyalgia Syndrome; 2. PoTS: Postural Orthostatic Tachycardia Syndrome; 3. Gastro: Gastrointestinal symptoms; 4. Uro: Genitourinary symptoms

** As defined by World Health Organization. Clinical management of COVID-19: interim guidance, 27 May 2020. Geneva: World Health Organization, 2020 2020. Report No.: Contract No.: WHO/2019-nCoV/clinical/2020*

Supplementary Table 3. Characteristics of PCS patients donating blood samples for passive transfer experiments.

Patient	Age	Sex	SSI Score	WPI Score	Muscle Pain	Joint Pain	Headache	Paresthesias
PCS-PF								
LoCoV6	34	F	10	9	4	9	6	N
LoCoV10	27	F	8	8	9	10	9	N
LoCoV9	69	F	8	13	7	8	5	Y
LoCoV11	57	F	11	10	7	9	5	Y
LoCoV5	50	F	9	9	7	6	5	Y
PCS-F								
LoCoV8	43	F	7	0	1	1	1	N
LoCoV3	62	F	9	1	1	2	1	N
LoCoV4	35	F	9	0	1	1	2	Y
LoCoV7	26	M	9	1	1	1	7	N

Characteristics of PCS-PF and PCS-F patients. SSS : Symptom Severity Score (scale 0-12). WPI: Widespread Pain Index (scale 0-19). Diagnosis for fibromyalgia-like symptoms: WPI ≥ 7 and SSS ≥ 5 or WPI 4-6 and SSS ≥ 9. Regional pain scores on scale 0-10 (none – worst imaginable pain).

Supplementary Table 4. Identified autoantibodies in PCS patients donating blood samples for passive transfer experiments.

Patient	AGTR2 AAB U/ml	ADRB-1 AAB U/ml	ADRB-2 AAB U/ml	CHRM3 AAB U/ml	CHRM4 AAB U/ml
PCS-PF					
LoCoV6	30.171	33.516	10.246	21.948	16.915
LoCoV10	>40	73.206	84.236	>40	42.145
LoCoV9	13.627	15.857	2.842	12.125	10.304
LoCoV11	>40	67.336	55.384	>40	52.684
LoCoV5	10.252	13.493	2.149	7.977	9.319
PCS-F					
LoCoV8	11.681	16.076	3.593	10.534	10.137
LoCoV3	9.427	10.185	9.206	8.27	2.535
LoCoV4	21.901	19.119	6.412	12.679	15.729
LoCoV7	13.281	10.653	13.488	3.368	5.076

Measurements of identified autoantibodies directed against Angiotensin 2 receptor, B1 and B2 adrenergic receptors and M3 and M4 muscarinic acetylcholine receptors.