

## Supplemental information

### Serotonin reduction in post-acute sequelae of viral infection

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**Table S1. Clinical characteristics of PASC cohort, Related to Figure 1**

<b>N</b>		1540
<b>Age (years; median (IQR))</b>		49 (20.7)
<b>Sex (n (%))</b>	<b>Male</b>	476 (30.1)
	<b>Female</b>	1023 (66.4)
	<b>Unknown</b>	41 (2.7)
<b>Race (n (%))</b>	<b>Asian</b>	21 (1.36)
	<b>Black</b>	225 (14.61)
	<b>Hispanic/Latino/White</b>	23 (1.49)
	<b>Hispanic/Latino/Black</b>	10 (0.65)
	<b>White</b>	917 (59.55)
	<b>East Indian</b>	1 (0.06)
	<b>American Indian</b>	5 (0.32)
	<b>Patient declined</b>	30 (1.95)
	<b>Unknown</b>	276 (17.92)
	<b>Other</b>	32 (2.08)
<b>Ethnicity (n (%))</b>	<b>Hispanic/Latino</b>	60 (3.90)
	<b>Non-Hispanic</b>	1263 (82.01)
	<b>Patient declined</b>	45 (2.92)
	<b>Unknown</b>	172 (11.17)
<b>Number of symptoms (Median (IQR))</b>		8 (6)
<b>Hospitalized during acute COVID-19 illness (n (%))</b>	<b>Nonhospitalized</b>	370 (24.03)
	<b>Hospitalized</b>	1094 (71.04)
	<b>Unknown</b>	76 (4.94)
<b>ICU admission during acute COVID-19 illness (n (%))</b>	<b>Not admitted to the ICU</b>	882 (57.27)
	<b>Admitted to the ICU</b>	107 (6.95)
	<b>Unknown</b>	551 (35.78)

Table S2. Clinical characteristics of acute COVID-19, recovered, and PASC cohorts, Related to Figure 2

		Acute		Recovered	PASC
		Moderate	Severe		
<b>N</b>		30	30	30	58
<b>Age (years; median (IQR))</b>		58.0 (19.75)	60.5 (19.75)	31.0 (25.50)	45.0 (20.5)
<b>Sex (n (%))</b>	<b>Male</b>	13 (43.3)	20 (66.7)	17 (56.7)	19 (32.8)
	<b>Female</b>	(17) 56.7	10 (33.3)	13 (43.3)	39 (67.2)
<b>Race/ethnicity (n (%))</b>	<b>Asian</b>	N/A	N/A	N/A	1 (1.72)
	<b>Black</b>	N/A	N/A	N/A	1 (1.72)
	<b>Hispanic/Latino</b>	N/A	N/A	N/A	0 (0)
	<b>White</b>	N/A	N/A	N/A	47 (81.03)
	<b>Native Hawaiian and Other Pacific Islander</b>	N/A	N/A	N/A	0 (0)
	<b>American Indian and/or Alaska Native</b>	N/A	N/A	N/A	0 (0)
	<b>Two or more races</b>	N/A	N/A	N/A	5 (8.62)
	<b>Unknown</b>	N/A	N/A	N/A	4 (6.90)
	<b>Other</b>	N/A	N/A	N/A	0 (0)
<b>Pre-existing Comorbidities (autoimmune disease, cancer, diabetes, hypertension, heart disease, lung disease, kidney disease, liver disease) (n (%))</b>	<b>No</b>	N/A	N/A	N/A	12 (22.10)
	<b>Yes</b>	N/A	N/A	N/A	45 (77.59)
<b>BMI (Median (IQR))</b>		27.00 (9.25)	28.50 (7.00)	N/A	26.96 (6.89)
<b>Hospitalized during acute COVID-19 illness (n (%))</b>	<b>Nonhospitalized</b>	N/A	0 (0)	N/A	46 (79.31)
	<b>Hospitalized</b>	N/A	30 (100.00)	N/A	12 (20.69)

**Table S3. Clinical characteristics of the UNCOVR cohort, Related to Figure 1**

		UNCOVR cohort
<b>N (individuals, samples)</b>		27, 76
<b>Age (years; median (IQR))</b>		57 (20.5)
<b>Sex (n (%))</b>	<b>Male</b>	11(40.7)
	<b>Female</b>	16 (59.3)
<b>Race (n (%))</b>	<b>White</b>	27 (100)
<b>BMI (median (IQR))</b>		29(4.6)
<b>Ethnicity (n (%))</b>	<b>Not Hispanic or Latino</b>	25(92.6)
	<b>Unknown / Not Reported</b>	2(7.4)

Table S4. Clinical characteristics of the UCSF LIINC and Rush PASC cohorts, Related to Figure 1

		UCSF LIINC cohort		Rush PASC cohort	
		No PASC	PASC	SARS-CoV2 negative	PASC
<b>N</b>		56	61	50	50
<b>Age (years; median (IQR))</b>		49 (19.5)	49 (19)	43 (11.8)	45 (18)
<b>Sex (n (%))</b>	<b>Male</b>	33 (55%)	27 (45%)	19 (38%)	19 (38)
	<b>Female</b>	23 (40%)	34 (60%)	31 (62%)	31 (62)
<b>Race/ethnicity (n (%))</b>	<b>Asian</b>	8 (73%)	3 (27%)	0 (0%)	0 (0%)
	<b>Black</b>	3 (50%)	3 (50%)	26 (52%)	7 (14)
	<b>Hispanic/Latino</b>	9 (31%)	20 (69%)	5 (10%)	9 (18)
	<b>White</b>	31 (48%)	34 (52%)	0 (0%)	34 (68)
	<b>Pacific Islander/Native Hawaiiin</b>	2 (67%)	1 (33%)	19 (38%)	0 (0%)
<b>Pre-existing Comorbidities (autoimmune disease, cancer, diabetes, hypertension, heart disease, lung disease, kidney disease, liver disease) (n (%))</b>	<b>No</b>	31 (51%)	30 (49%)	N/A	N/A
	<b>Yes</b>	25 (45%)	31 (55%)	N/A	N/A
<b>BMI (Median (IQR))</b>		26.14 (7.25)	30.94 (9.9)	34.9 (4.9)	28.7 (7.2)
<b>Hospitalization during acute COVID-19 illness (n (%))</b>	<b>Nonhospitalized</b>	47 (51%)	46 (49%)	N/A	38 (76)
	<b>Hospitalized</b>	9 (37.5%)	15 (62.5%)	N/A	12 (24)

**Table S5. Clinical characteristics of the systemic viral infection cohort, Related to Figure 2**

		<b>Healthy</b>	<b>Viral infection</b>
<b>N</b>		20	33
<b>Age (years; median (IQR))</b>		37 (21.00)	61.97 (15.19)
<b>Sex (n (%))</b>	<b>Male</b>	6 (30.00)	19 (58.82)
	<b>Female</b>	14 (70.00)	14 (41.18)
<b>Race/ethnicity (n (%))</b>	<b>Asian</b>	0 (0)	0 (0)
	<b>Black</b>	4 (20.0)	10 (30.3)
	<b>Hispanic/Latino</b>	0 (0)	0 (0)
	<b>White</b>	16 (80.0)	23 (69.7)
	<b>Native Hawaiian and Other Pacific Islander</b>	0 (0)	0 (0)
	<b>American Indian and/or Alaska Native</b>	0 (0)	0 (0)
	<b>Two or more races</b>	0 (0)	0 (0)
	<b>Unknown</b>	0 (0)	0 (0)
	<b>Other</b>	0 (0)	0 (0)