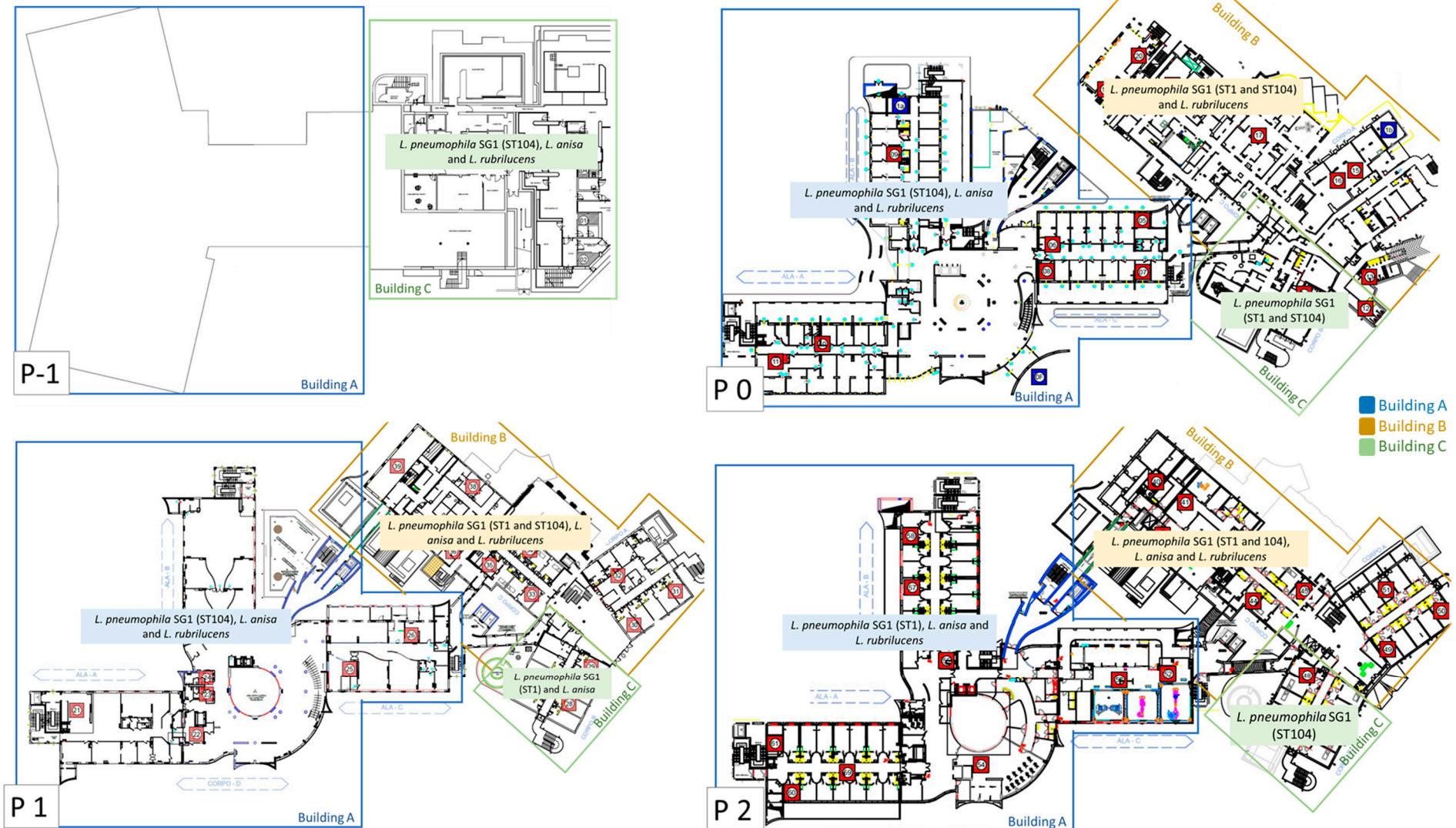
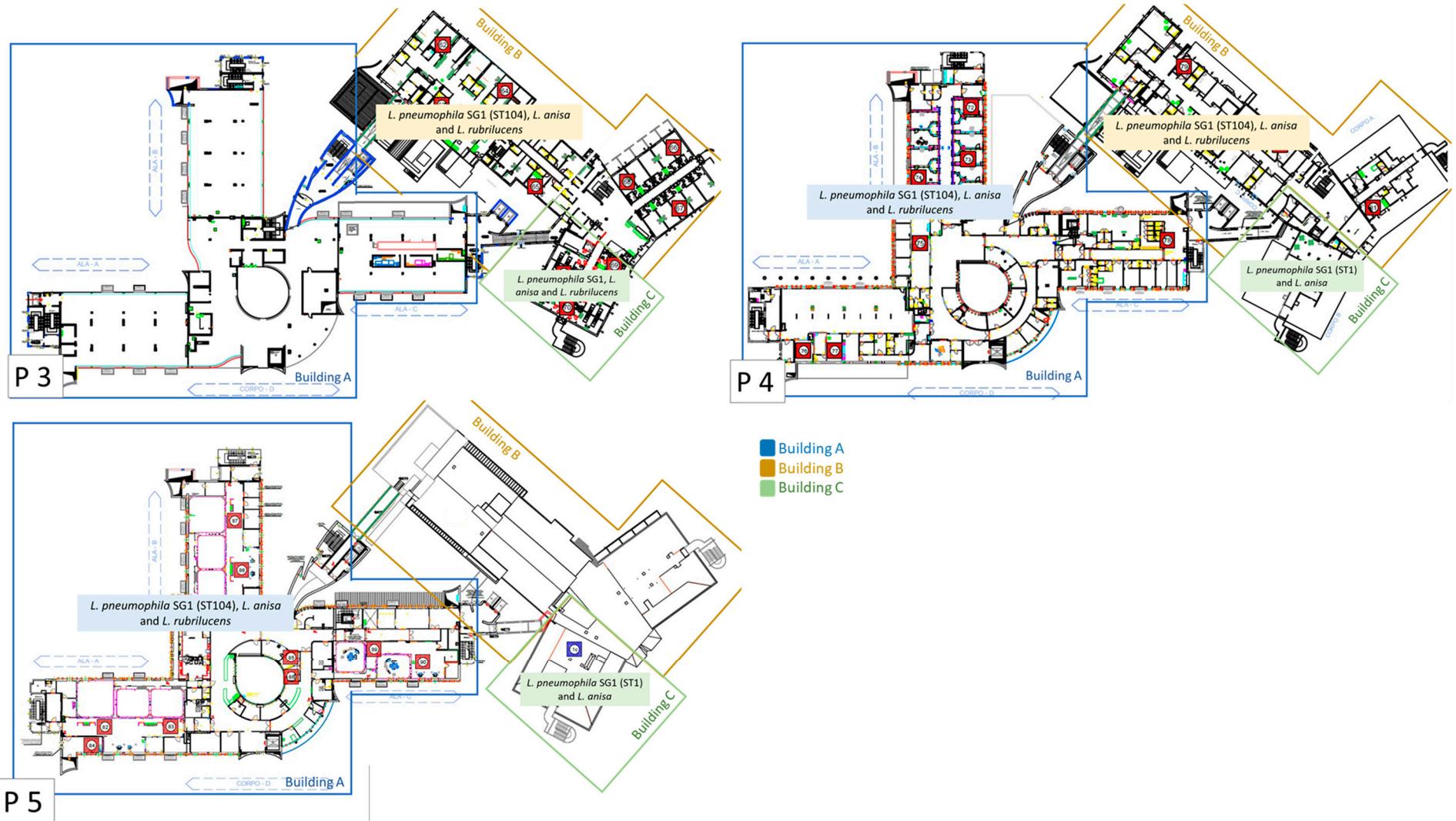


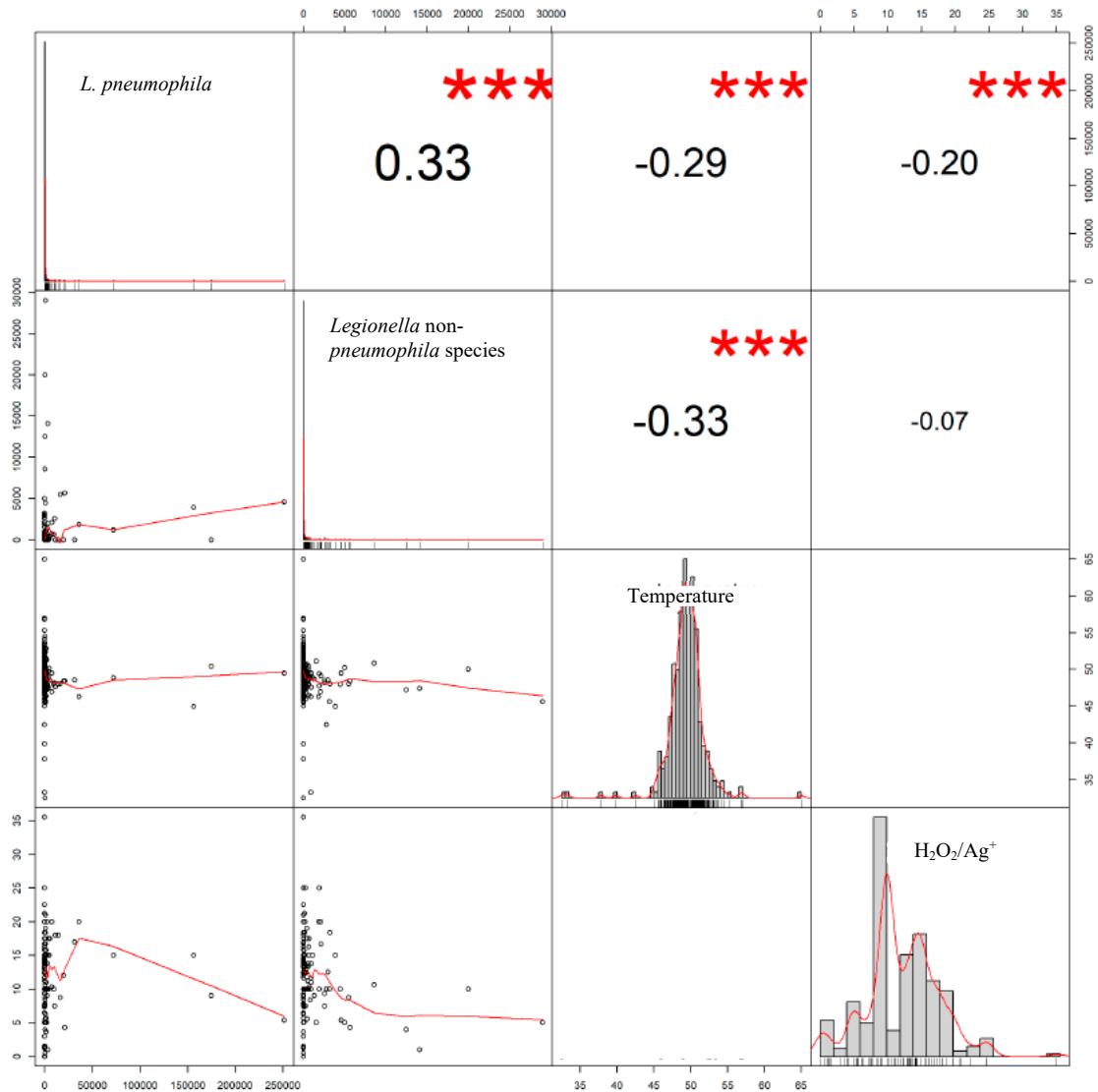
## SUPPLEMENTARY FILES



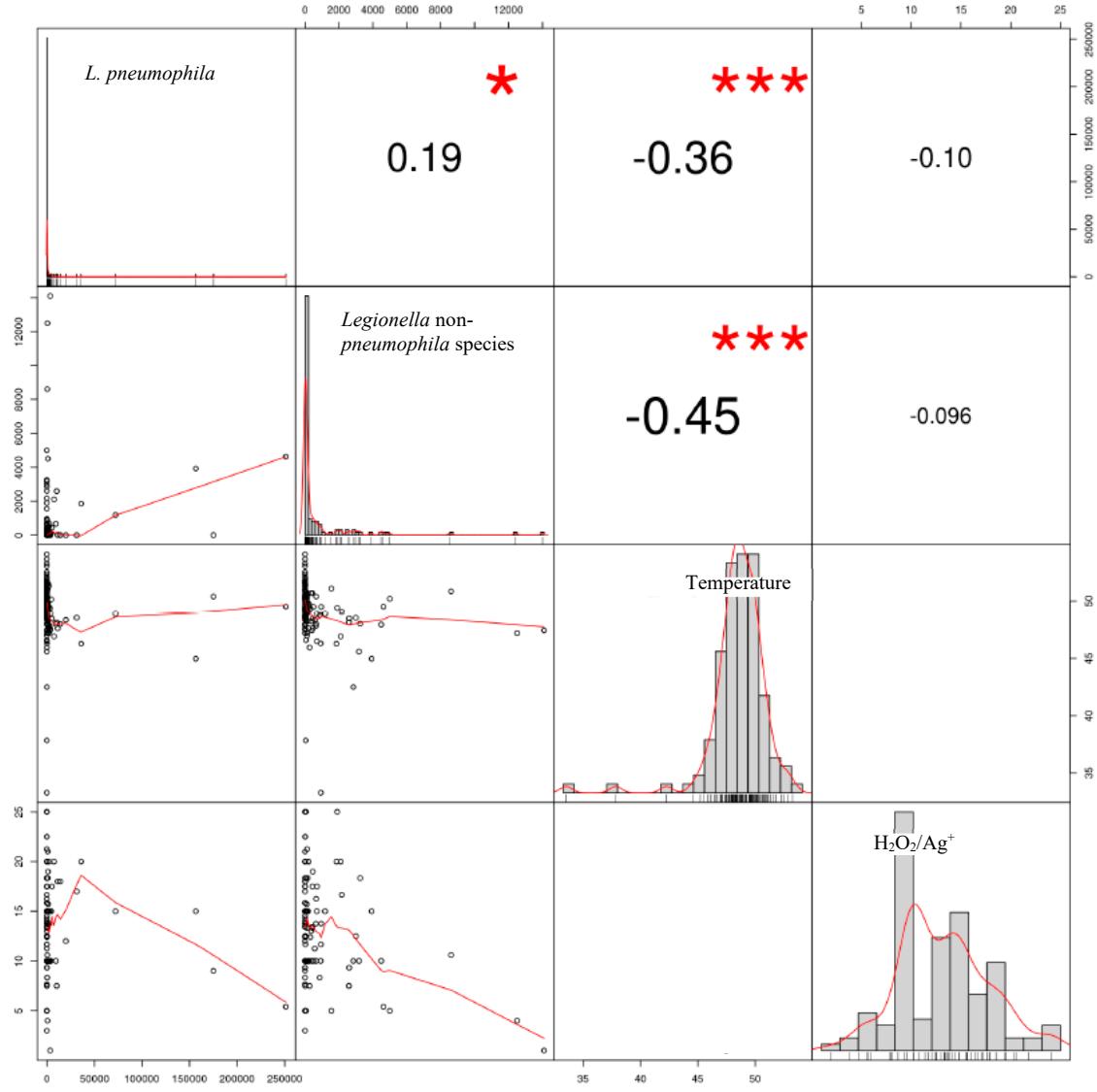
**Figure S1:** Risk map of *Legionella* spp. distribution in the Hospital: Building A (blue square), B (yellow square) and C (green square) (floors from -1 to 2)



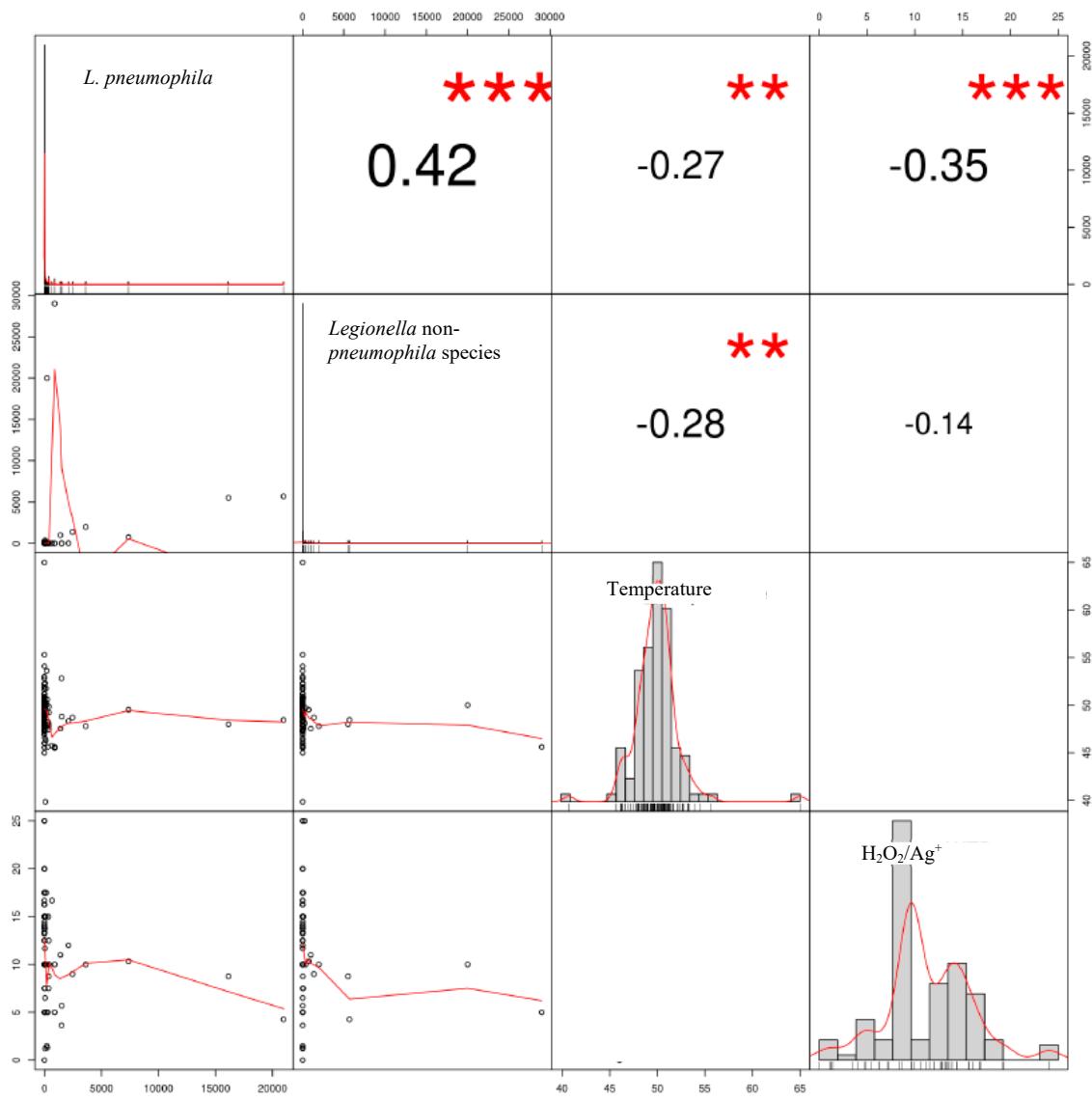
**Figure S2:** Risk map of *Legionella* spp. distribution in the Hospital: Building A (blue square), B (yellow square) and C (green square) (floors from -1 to 2)



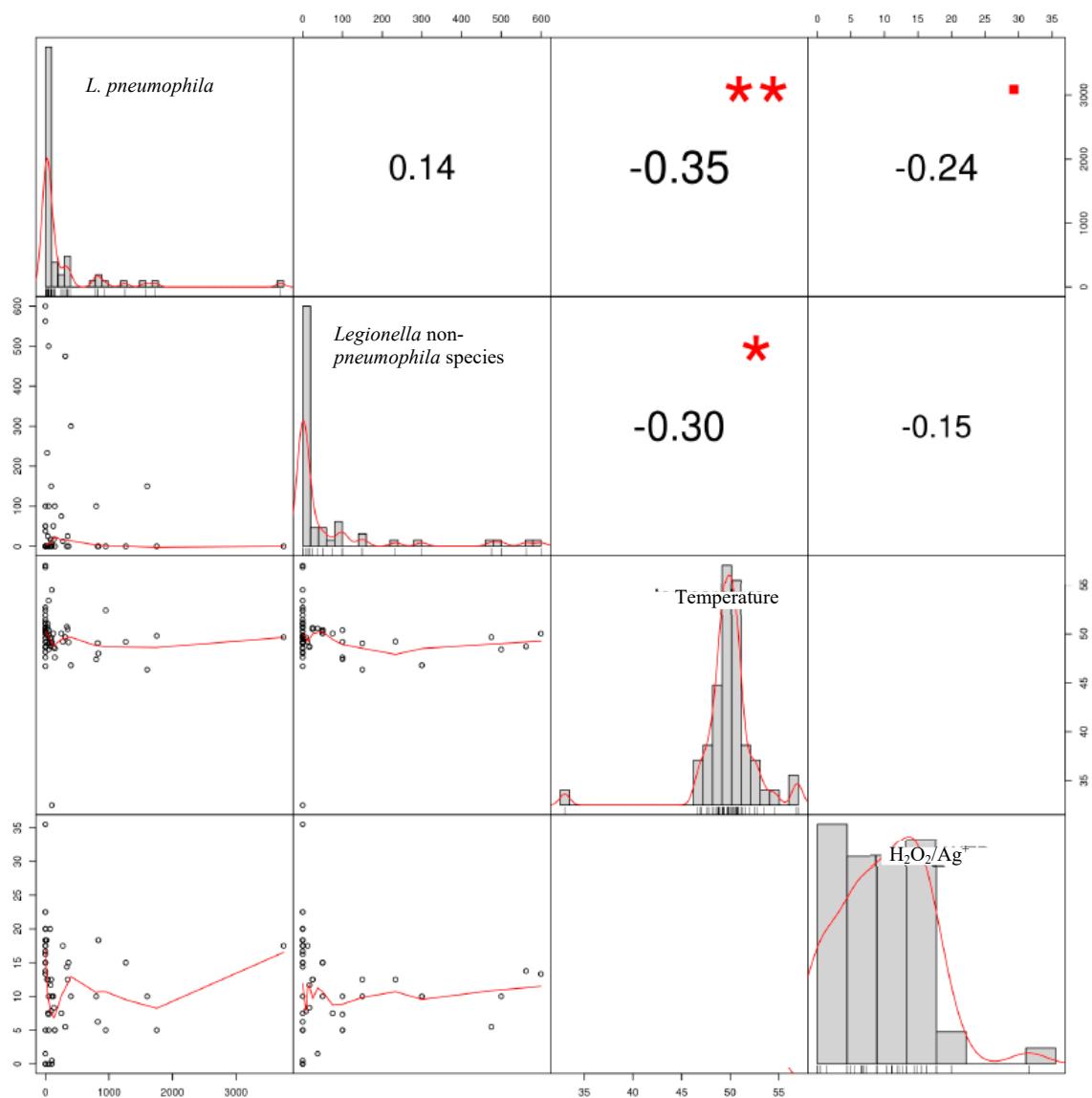
**Figure S3:** Correlation matrix of Hospital Complex: *Legionella* mean concentration vs temperature and disinfectant (\*\*p value < 0.0001)



**Figure S4:** Correlation matrix of Building A: study of relationship between *L. pneumophila*, Legionella non-pneumophila species, temperature and disinfectant (\* $p$  value < 0.05, \*\*\* $p$  value < 0.0001)



**Figure S5:** Correlation matrix of Building B: study of relationship between *L. pneumophila*, Legionella non-pneumophila species, temperature and disinfectant (\*\* $p$  value < 0.01, \*\*\* $p$  value < 0.0001)



**Figure S6:** Correlation matrix of Building C: study of relationship between *L. pneumophila*, Legionella non-pneumophila species, temperature and disinfectant ( $\bullet$   $p$  value 0.05-0.1,  $*$   $p$  value < 0.05,  $**$   $p$  value < 0.01)

**Table S1:** Physical and chemical parameters of water in Hospital aqueduct, tap water output and hot water return lines

Parameters	pH	Hardness	Conductivity	Turbidity	Total iron	Total phosphorus	Silver	Temperature	Peroxide
U.M.		° f	µS/cm	NTU	mg/L	mg/L P <sub>2</sub> O <sub>5</sub>	µg/L	° C	mg/L
<b>Water reservoir</b>	7.89 ± 0.33	12.08 ± 3.98	399.21 ± 34.21	0.37 ± 0.06	<0.04	<0.3	<3	17.80 ± 1.97	not detected
<b>Water Output outlets</b>	7.83 ± 0.28	11.15 ± 4.03	402.35 ± 33.82	0.41 ± 0.08	<0.04	<0.2	<3	13.72 ± 4.41	not detected
<b>Sampling points (mean ± SD)</b>									
<b>Hot water return line (Building A)</b>	7.93 ± 0.26	12.23 ± 3.04	415.87 ± 40.86	0.38 ± 0.09	<0.04	3.17 ± 1.27	<3	49,50 ± 0,94	13,70 ± 4,03
<b>Hot water return line (Building B)</b>	7.95 ± 0.25	12.73 ± 3.55	419.32 ± 41.56	0.50 ± 0.29	<0.04	3.25 ± 1.90	<3	49,84 ± 0,56	12,24 ± 5,90
<b>Hot water return line (Building C)</b>	7.85 ± 0.17	12.35 ± 2.22	421.22 ± 28.76	0.91 ± 0.87	<0.04	1.58 ± 0.78	<3	49,64 ± 0,84	10,48 ± 5,07