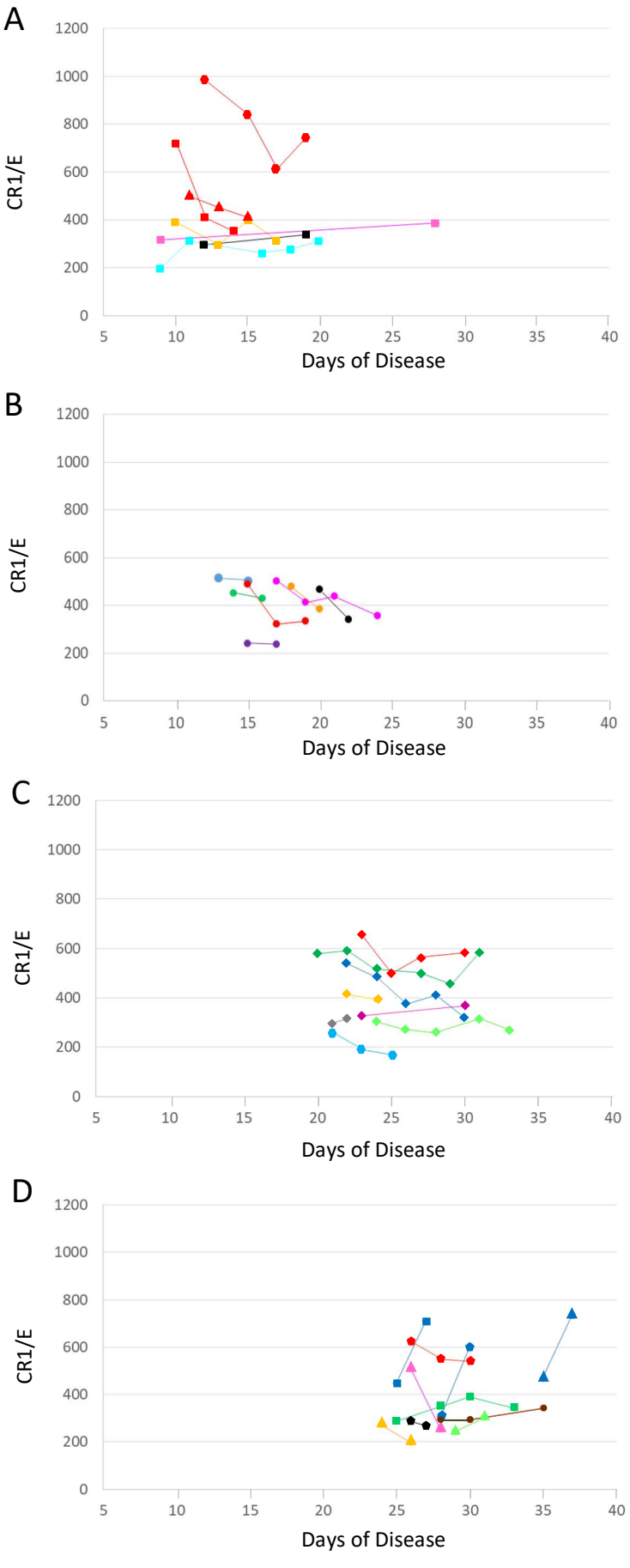
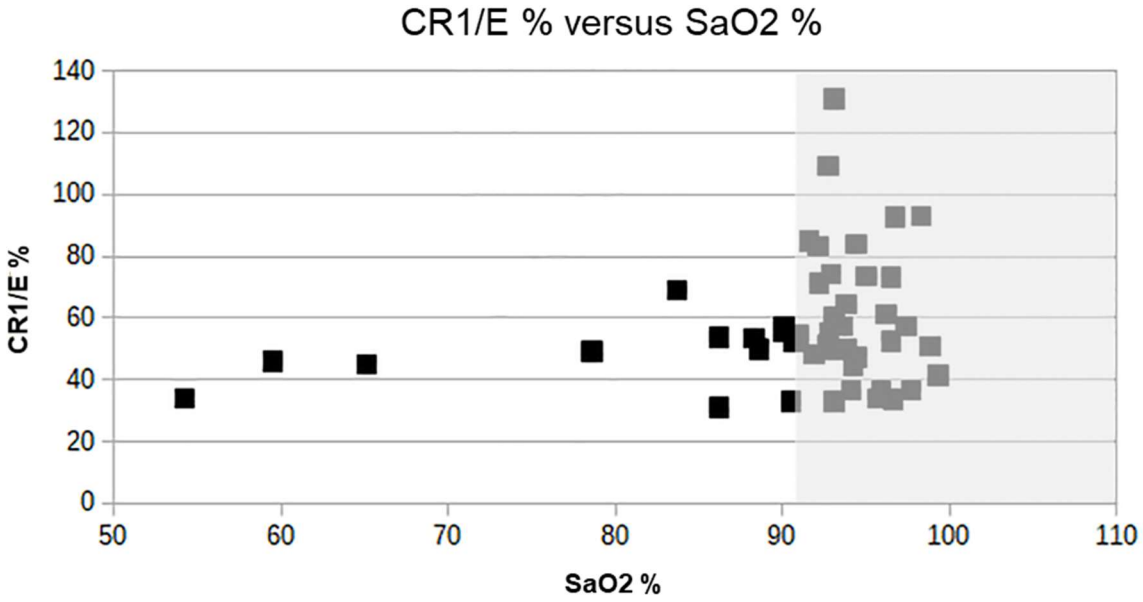
Supplemental Figure 1. CR1/E density for COVID-19 patients with follow-up according to days of disease. (**A)**, (**B)**, (**C)**, (**D)**, CR1/E density patient followed-up were plotted with their longitudinal profile according to days of disease from the onset of symptoms in A, B, C, D chronological sub-figures for the sake of clarity, as there were too many to show on one image. Thirty two COVID-19 patients are represented. Each is distinguished by one color and one symbol: round, square, diamond, border, pentagon and hexagon.

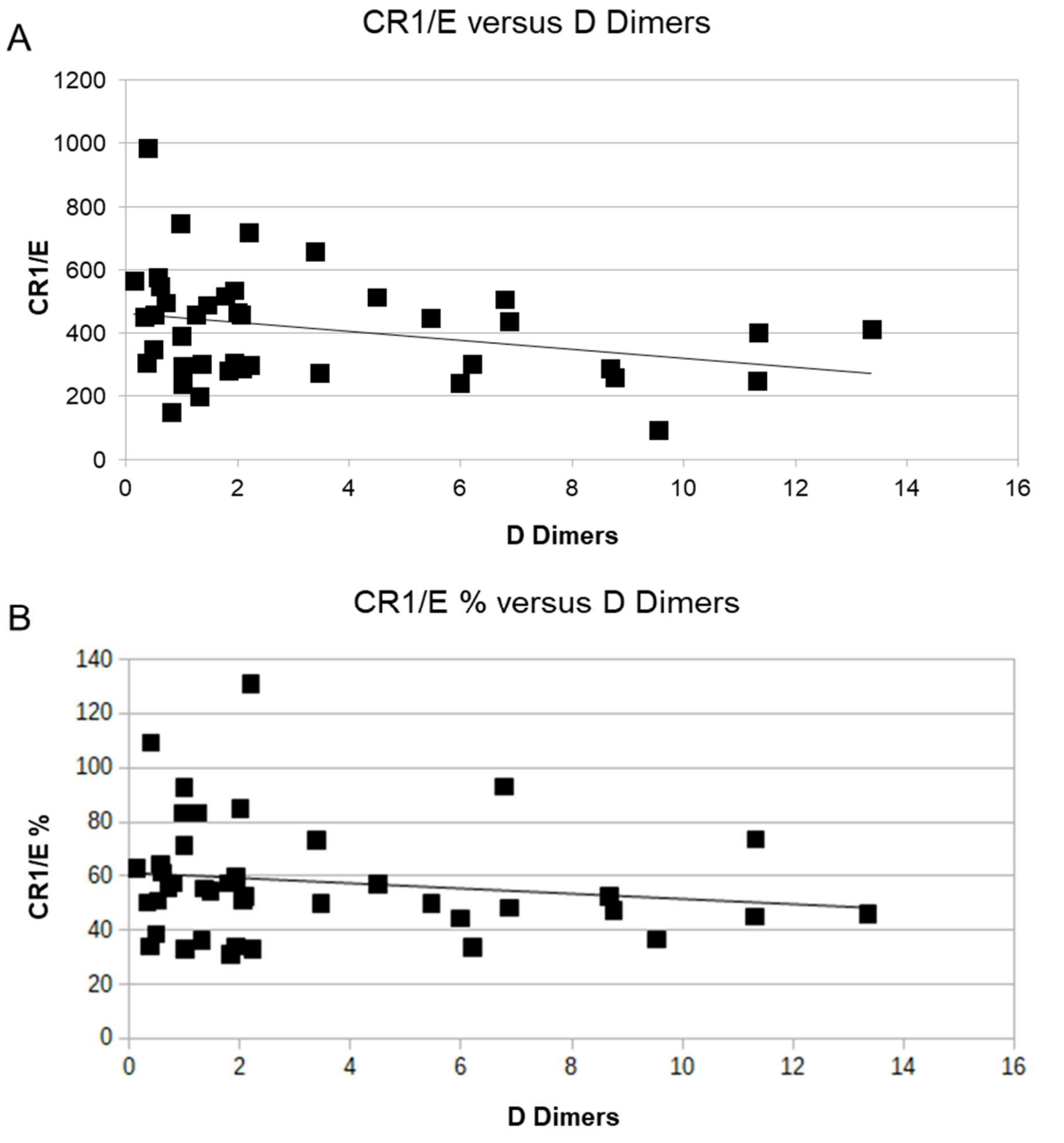


Supplemental Figure 2. CR1/E density according to the decrease the arterial SaO2 decrease. The CR1/E density is expressed as percentage of the CR1/E value predicted by the rs11118133 density genotype of the patient (CR1/E %). Mean decrease of CR1 for SaO2 under O2 (either optiflow or assisted ventilation) lower than 91 % was mean 49 % SD10 N14 versus mean 62 % SD10 N32 for SaO2 values above 91 % (p=0.007 Welch Two Sample t-Test). The lowest SaO2 value reached despite maximal O2 assistance was plotted against the CR1/E % at the first testing of each patient. Grey shadow SaO2 above 91%.
CR1/E values above 100 % originated either from the presence of reticulocytes which express 20000 more CR1 than E, or from a preferential destruction of old E in some haemolysis situations such as in septicemia.



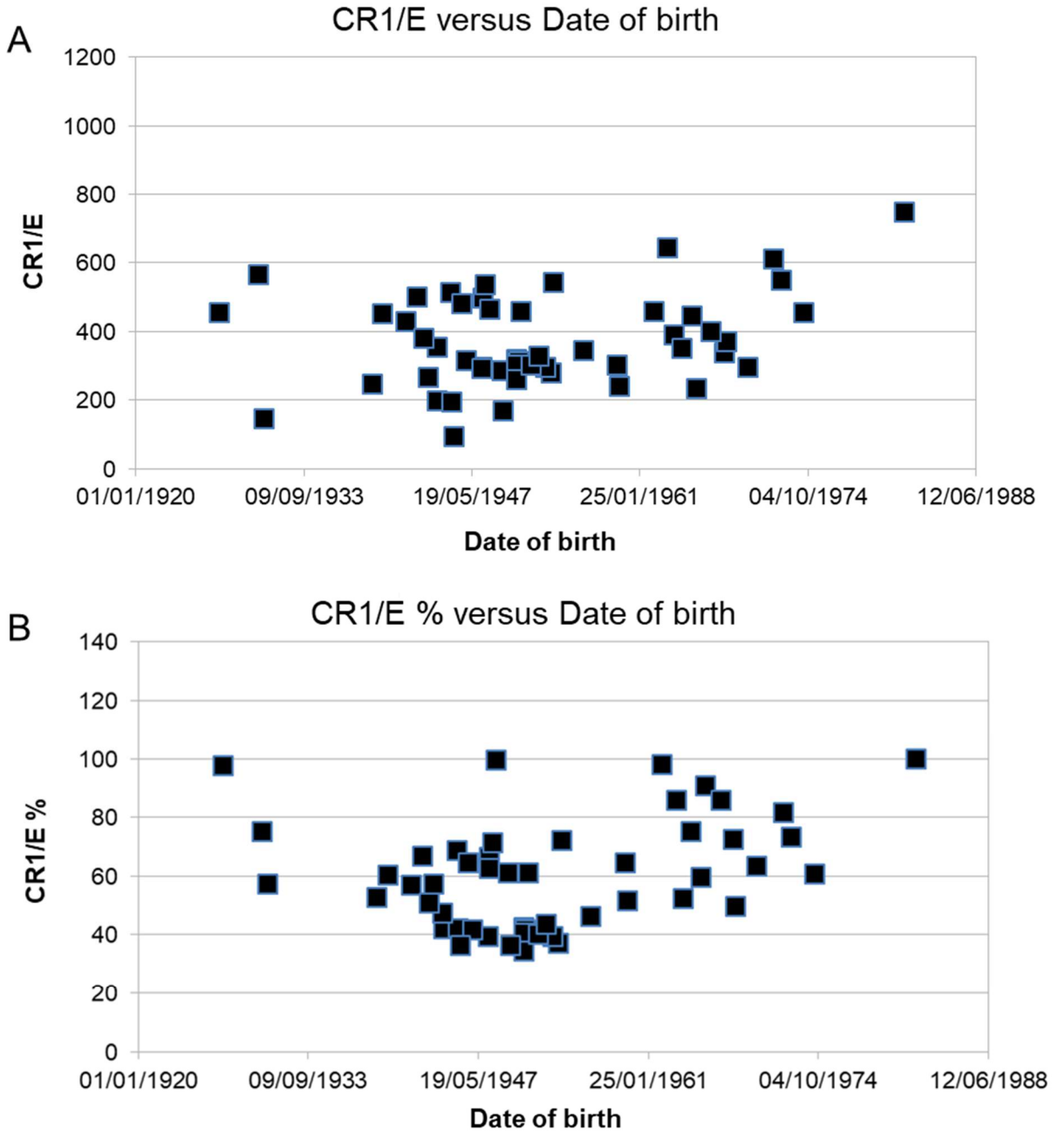
Supplemental material Figure 2

Supplemental Figure 3. CR1/E density plotted against the level of D Dimers. (A), CR1 antigenic site density, R^2= 0.085 p = 0.066. (B), CR1/E density is expressed as percentage of the CR1/E value predicted by the rs11118133 density genotype of the patient (CR1/E %), R^2 = 0.025 p = 0.324. The density of CR1/E tended to decrease as the level of D dimers increased.



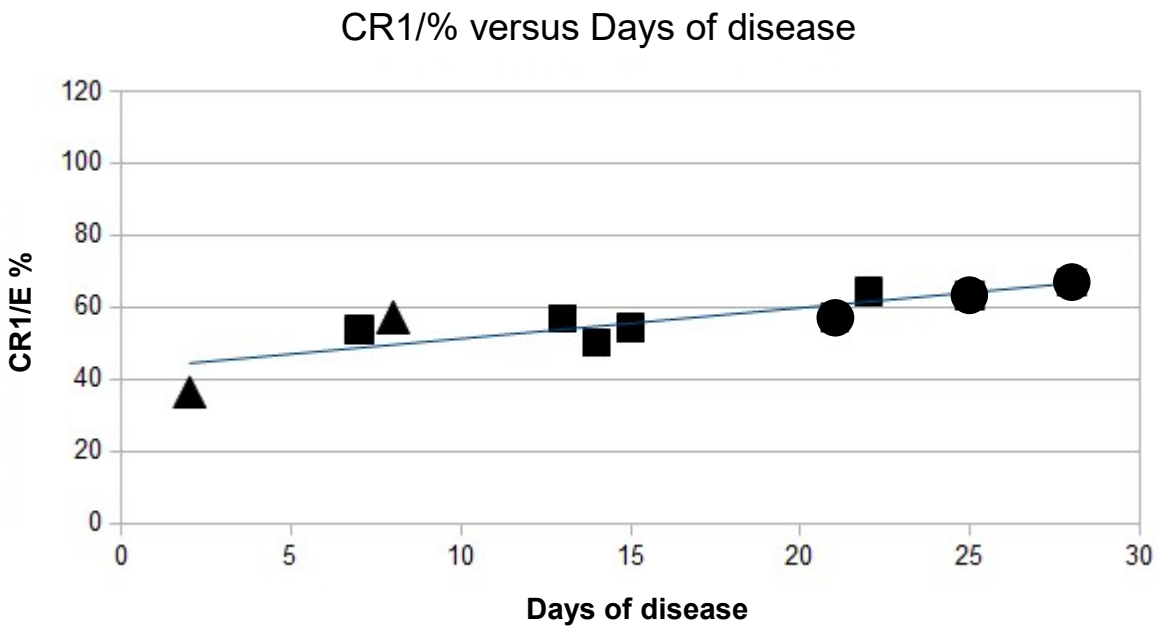
Supplemental material Figure 3

Supplemental Figure 4. CR1/E density according to the dates of birth of the patients. (**A**) The lowest measurement of CR1/E only was plotted for each patient according to the dates of birth, linear regression R^2 = 0.086 p= 0.036. (**B**) The CR1/E density is expressed as percentage of the CR1/E value predicted by the rs11118133 density genotype of the patient (CR1/E %), R^2 =0.073 p =0.054. Four patients didn't exhibit an acquired decrease of CR1/E below the density predicted by their genotypes. Excluding them R^2= 0.11 p= 0.023.



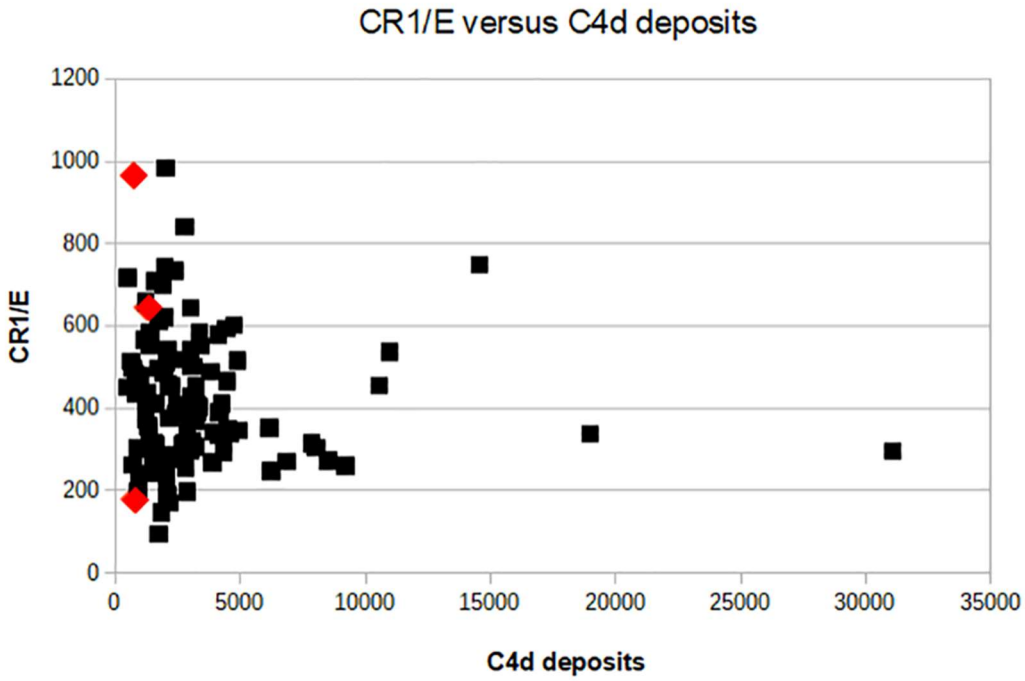
Supplemental material Figure 4

Supplemental Figure 5. CR1/E density among deceased patients according to the duration of the disease, from the first day of symptoms to the day of blood collection. CR1/E is expressed as percentage of the mean CR1/E density expected from the rs11118133 density genotype of a given individual (CR1/E %).
Triangle: homozygous LL low density genotype. Circle: heterozygous HL medium density genotype. Square: homozygous HH high density genotype.
Among the 10 deceased patients with globally low CR1/E values, the earlier in the disease the CR1/E was assessed, the lower were the CR1/E values. The equation of the line obtained is $f(x) = 0.856 x + 42.80$ $R^2 = 0.696$ $p = 0.007$.



Supplemental material Figure 5

Supplemental Figure 6. CR1/E density according to the C4d deposits. The COVID-19 patients are depicted in black. The healthy controls are depicted in red. X axis: The C4d deposits on E are expressed as positive events above the negative control staining.



Supplemental material Figure 6