Combining microfluidic spleen-like filtering unit with machine learning algorithms to characterize rare hereditary hemolytic anemia

Valeria Rizzuto, Arianna Mencattini, B. Álvarez-González, Davide Di Giuseppe, Eugenio Martinelli, David Beneítez-Pastor, Maria del Mar Mañú-Pereira, Maria José Lopez-Martinez*, Josep Samitier

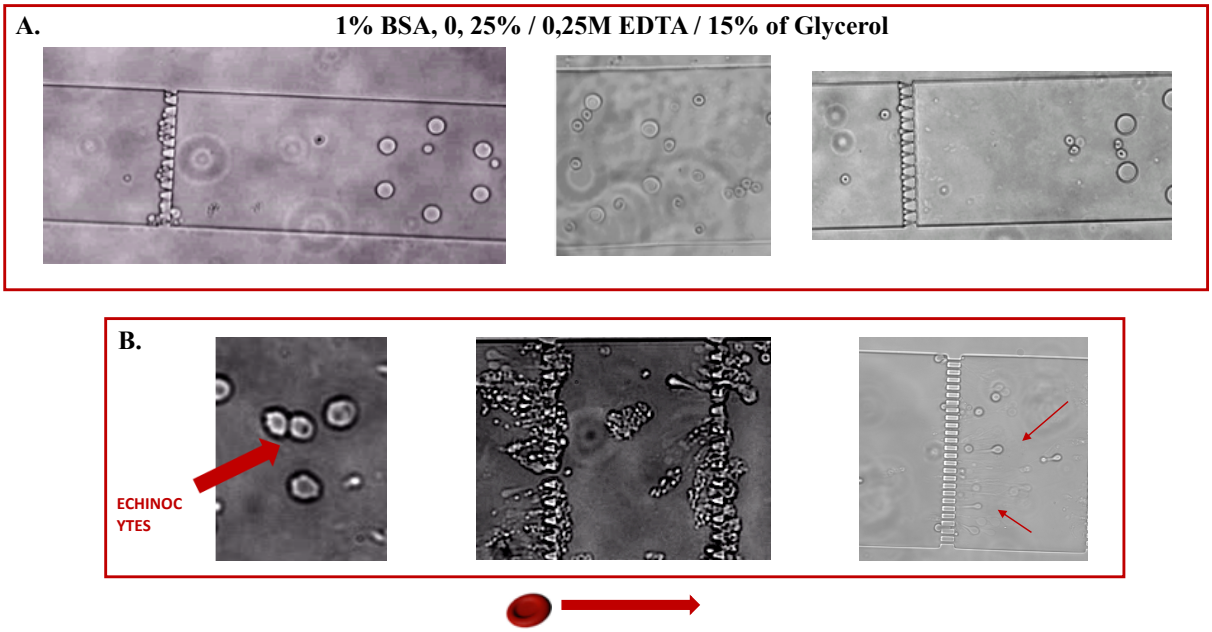

Figure S 1 (Various reagents were tried and tested to get the optimal solution for the experiments. The main problems to be overcome is the formation of echinocytes but also of RBCs aggregates, especially after passing through the slits. Solutions tested during the optimization process include PBS / EDTA, PBS / EDTA / BSA 0.1%, Physiological saline solution / EDTA / BSA 0.1%, Physiological saline solution / EDTA, Physiological saline solution / EDTA / Poloxamer. A. With our final solution, containing BSA/EDTA/glycerol, our chip is clean with no RBC aggregations and/or echinocytes. B. With the other solutions it was not possible to carry out experiments while maintaining the physiological conditions of the RBCs.