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In dealing with the clinical use of hematopoietic stem cells contained in Umbilical Cord Blood (UCB) for hemopoiesis reconstitution, numerous scientific articles recall that prior to acknowledgment of the potential of UCB for transplants, this tissue was regarded as a discarded human residuum. The transformation from waste to a valuable life-saving tissue is thus taken for granted in the biomedical literature. In my research, instead, I critically investigate the socio-technical process by which this transformation occurred, drawing on the notion of bio-objectification (Webster 2012). I explore how the transformation of UCB from a waste to a valuable tissue occurred through a two-way interaction between basic biological research and clinical settings. Secondly, drawing on the notion of biobanks as forms of governing life, my research explores how different institutional arrangements in UCB biobanking produce different routes in UCB bio-objectifications and different economic regimes of UCB exploitation, which are connected to different ways to articulate the relationship between biomedicine and society. In other words, I investigate how the co-construction of medical technologies, therapeutic applications, subjectivities and social rationalities varies according to the institutional arrangements in which UCB bio-objectification takes place.