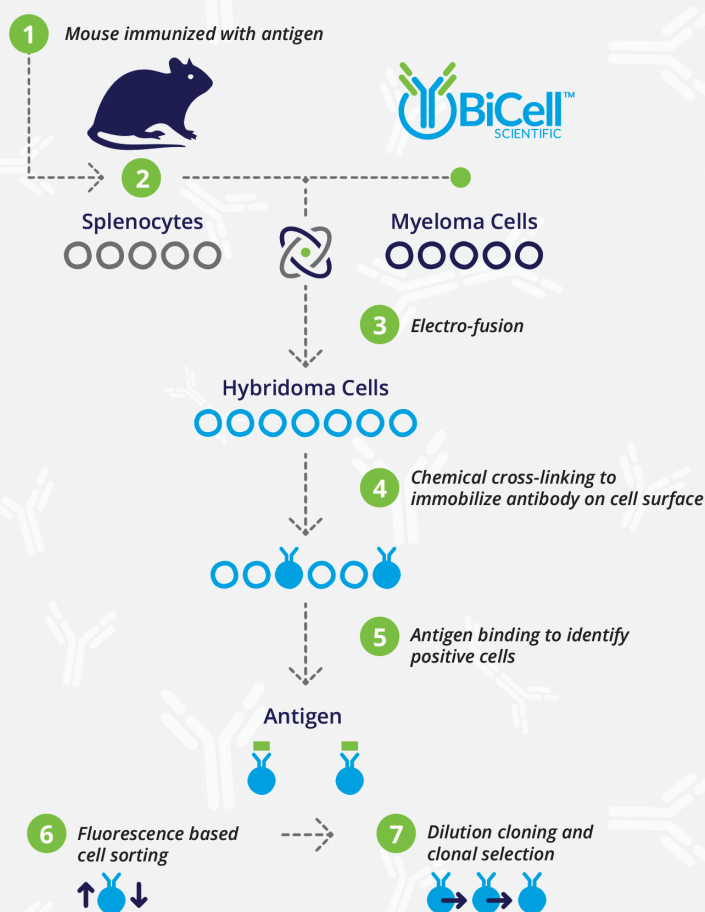


# Smart Selection Approach for Monoclonal Antibody Production

Hybridomas are immortal somatic cell hybrids that secrete antibodies. Hybridoma generation is a critical step in making monoclonal antibodies. A major barrier to monoclonal antibody discovery is hybridoma selection. Hundreds to thousands of hybridoma cells have to be manually screened in the hope of identifying antibody-secreting clones.

BiCell Scientific Inc has developed a “smart” selection approach to identify antibody-secreting hybridoma cells and streamlined the process for monoclonal antibody production.



## Flow chart of “smart” hybridoma selection

**Step 1.)** Mouse is immunized with antigen

**Step 2.)** Splenocytes from immunized mouse are isolated

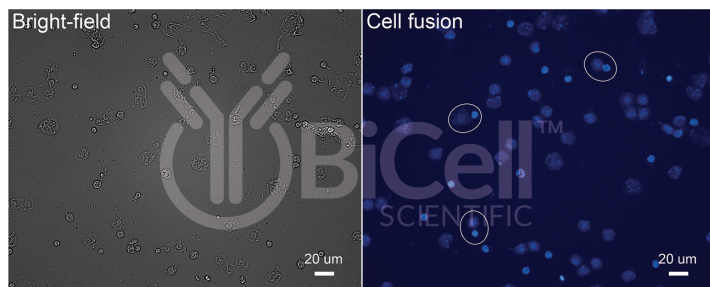
**Step 3.)** Splenocytes are fused with myeloma cells (our electrofusion protocol can generate 1 hybridoma clone out of  $10^4$  splenocytes)

**Step 4.)** Hybridoma cells are treated by a proprietary crosslinking protocol to immobilize antibodies on the cell surface

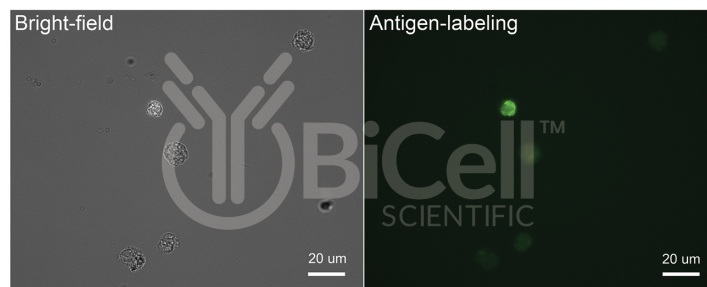
**Step 5.)** Fluorophore labeled antigen molecules allow identifying positive hybridoma cells by direct binding to the hybridoma cell surface

**Step 6.)** Fluorescence based cell sorting

**Step 7.)** Dilution cloning and clonal selection



**Electrofusion efficiently fuses myeloma cells with splenocytes.** Circle indicates fusion event. Myeloma cells: large nuclei; splenocytes: small nuclei.



**Antigen labeling of hybridoma cells.** Hybridoma cells are transiently crosslinked to immobilize antibodies on the cell surface. FITC-labeled antigen binds to and decorates the hybridoma cell that secretes the correct antibody.