Antibodies play a critical role in diagnostics and therapeutics. In these, and other applications, performance and consistency are critical. The capability to convert an existing hybridoma-derived antibody to a recombinant antibody, cloning of the antibody from B-cells and engineering the antibodies for specific applications offers many advantages. Among these are consistency, long-term supply, high yields, enhanced stability, and activity. As the industry moves towards dependence on recombinant antibody technologies, R&D Systems has been on the leading edge of the effort to advance the field of antibody engineering.

**Recombinant Antibody Conversion**

Conversion of a traditional hybridoma-derived antibody to a recombinant antibody provides an immortalized antibody that is consistent from lot-to-lot and provides opportunities for engineering. Our proprietary expression platform generates high yields that can support your long term needs.

**CAR-T cell therapy** uses antibodies as a critical component for cancer immunotherapy. R&D Systems has an existing library of CAR validated single chains and a validation program for faster development of CARs for your target. Our brick system allows us to rapidly generate large panels of CAR constructs that can be tailored for your specific applications.

**Fc engineering** is a useful tool for making changes to an antibodies post-translational modifications or making a significant impact to the serum half-life of an antibody. In addition, engineering of several Fc domains also ensures consistent glycosylation pattern in production.

**Chimeric Antigen Receptor (CAR) Design**

CAR-T cell therapy uses antibodies as a critical component for cancer immunotherapy. R&D Systems has an existing library of CAR validated single chains and a validation program for faster development of CARs for your target. Our brick system allows us to rapidly generate large panels of CAR constructs that can be tailored for your specific applications.

**Expression Engineering**

Critical antibodies with low expression can result in costly production and increased variability. R&D Systems is on the leading edge of expression engineering. Using our existing expertise, we can engineer your antibody to increase expression by up to 200 fold.

**Fc Engineering**

Fc engineering is a useful tool for making changes to an antibodies post-translational modifications or making a significant impact to the serum half-life of an antibody. In addition, engineering of several Fc domains also ensures consistent glycosylation pattern in production.

**NOTE:** This poster conveys a general overview and should be considered neither comprehensive nor definitive. The details of this information are understood to be subject to interpretation. © 2019 R&D Systems