

# Progress in Molecular Biology and Translational Science

## Patents and technology transfer in CRISPR technology

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### Abstract

CRISPR technology has revolutionized biological research in the last decade and many academic institutions and companies have patented CRISPR systems and applications. Several patents have been filed for various applications of CRISPR in different industries such as agriculture, synthetic biology, bio-nanotechnology and precision medicine. Despite tremendous pressure on the technology transfer teams, several startups and spin-out companies are already using CRISPR technologies for commercial applications. In this chapter, we discuss the different CRISPR nucleases and their applications. Secondly, we detail our current opinion and perspective on the CRISPR patent and technology landscape for non-mammalian systems. We present two case-studies on CRISPR diagnostics companies, SHERLOCK and Mammoth Biosciences, who are currently at the forefront of establishing diagnostics platforms for coronavirus (SARS-CoV-2) detection. Finally, our chapter identifies future advancements and possible challenges that CRISPR technology might face in non-mammalian systems.