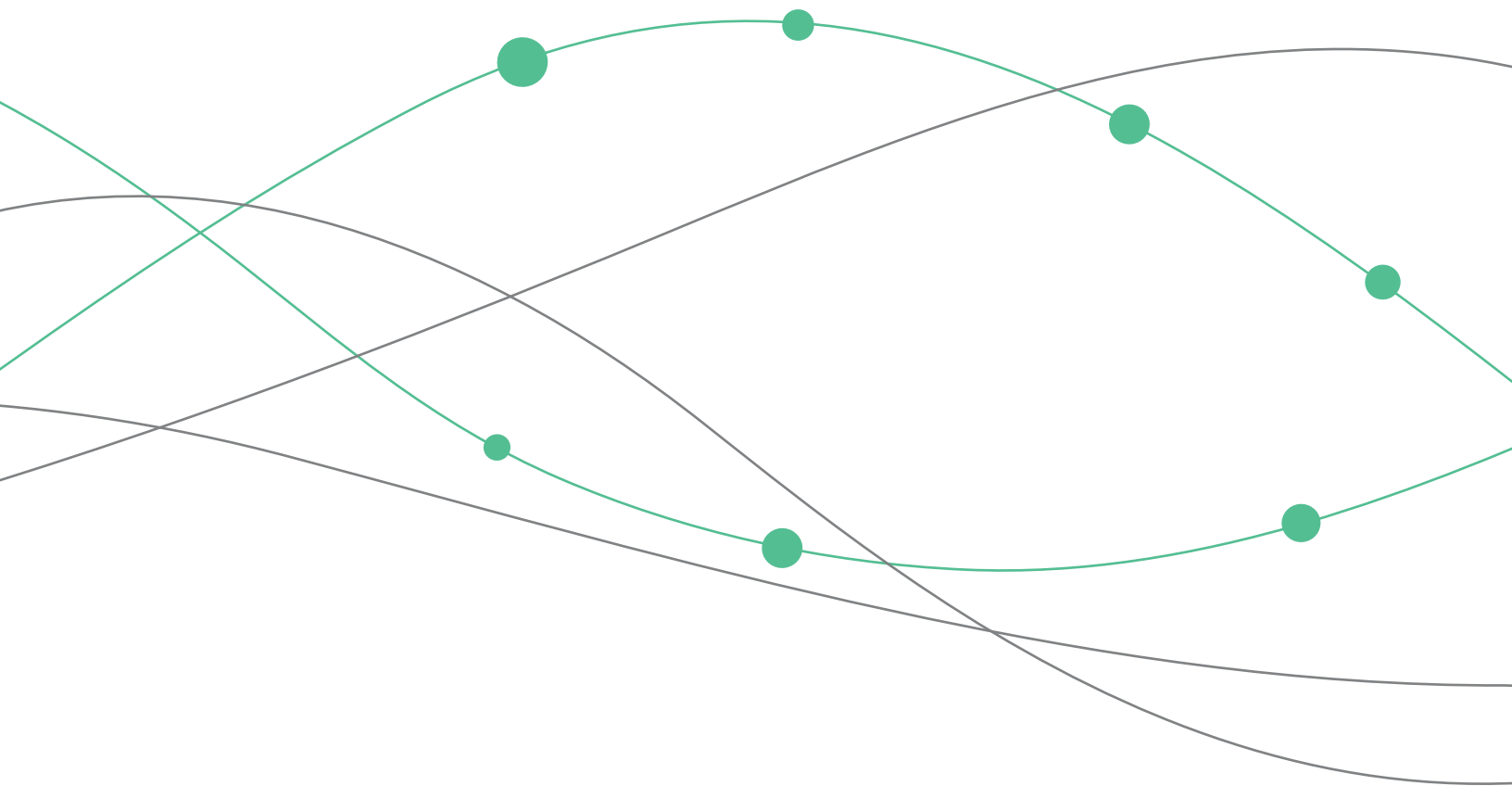




# Reimagine SequenceSpace™

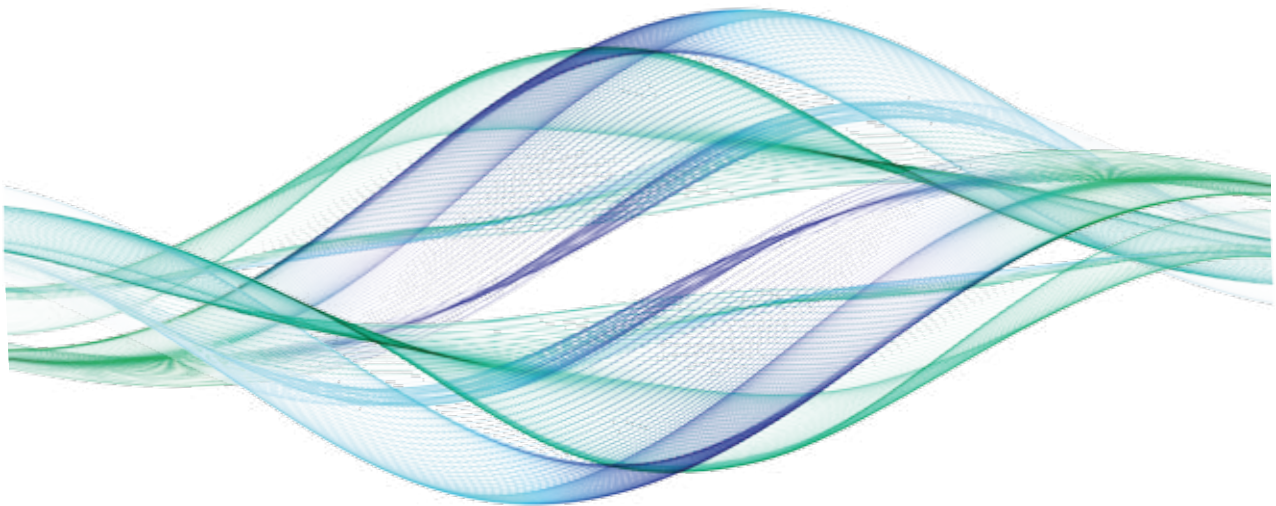
Reimagine Research





# Reimagine SequenceSpace™

Engineering biology facilitates our understanding and improvement of biological systems through the exploration of SequenceSpace™— the sum of all possible sequence variants. Its promise hinges on the ability to quickly access high quality oligonucleotides, genes and libraries and informatics tools to support experimental designs on a grander scale.



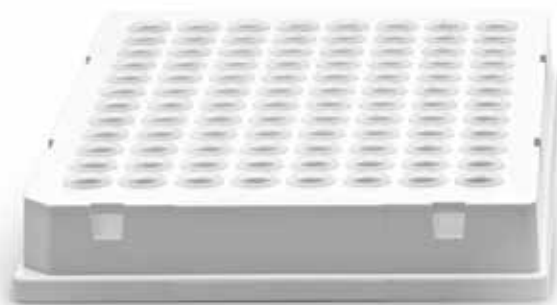
### Innovation is in our genes

Our technology is the first silicon-based DNA writing platform, enabling massively parallel synthesis of millions of unique high quality oligonucleotides. Oligos are made at the right amounts with high uniformity enabling simultaneous assembly of tens of thousands of genes per run, a hundred to thousand times higher than any other method. This technology accelerates the production of high quality engineering biology tools at much lower costs, speeding up discovery.

### Design on a grander scale, reimagine research

With more high performance tools at your fingertips, experimental designs can be reimaged. Explore genes and re-examine the intricacies of pathways and genomes with a new lens. With this new understanding, harness the power SequenceSpace™, and for the first time, unleash the untapped potential of engineering biology.

Traditional Methods



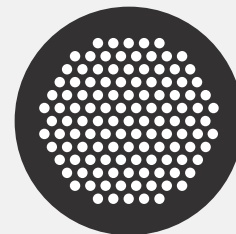
Twist Bioscience's  
Silicon-based Synthesis Platform



1 Well = 121 Oligos



1 well



Inside 1 well

Beta Access  
Is Here!



# Reimagine Gene Synthesis

Twist Bioscience is transforming gene synthesis, a process at the core of synthetic and molecular biology. Our 9,600 nano-well silicon platform miniaturizes gene synthesis reaction volumes by a factor of 1000, enabling increased scalability and throughput while reducing turn around times and price per base.

Think on a new scale, reimagine your gene designs, and accelerate your discoveries.

## KEY BENEFITS

### Your Sequence, Your Way

Clonal perfect or non-clonal  
Delivered in your vector or  
Twist's catalog vector  
NGS verified

### Industry Leading Prices & Rapid Turn-around Times

### Platform Scalability

No order limits

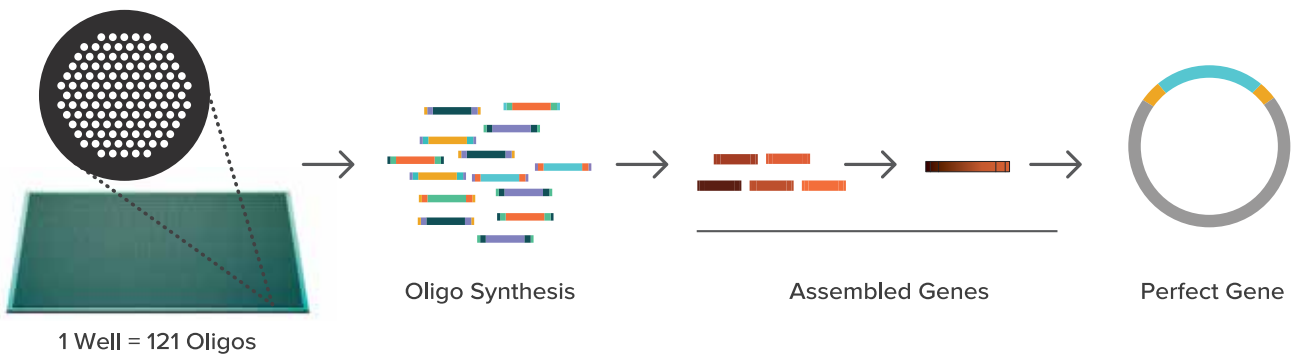
## PRODUCTS

### Clonal Perfect Genes, up to 1.8 kb

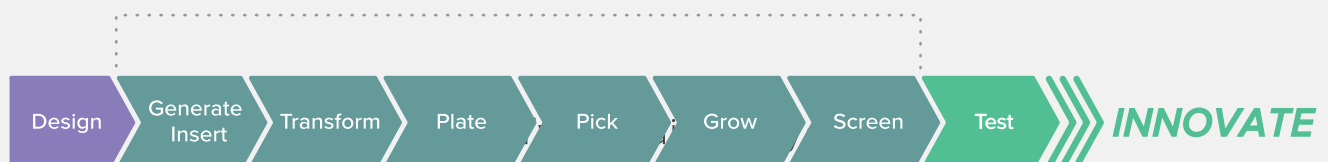
- Cloned in your vector or  
Twist's catalog vector, 1ug

### Nonclonal Fragments, up to 1.8 kb

- Linear dsDNA, 100 ng



## Why Clone? Let Twist Build for You







# Reimagine Gene Editing

The CRISPR-Cas9 system is an RNA-guided, site-specific genome editing technology that scales from single gene loci to whole genomes. In this application, accuracy and uniformity of oligo synthesis is critical to ensure representation of guides and specificity of targeting.

In this system, Twist Bioscience's oligo pools can be utilized as a library of guide RNAs for cloning into expression vectors. With the power of diversity, efficient screens can be realized, accelerating your research.

## DNA pools for gRNA cloning

### Unamplified pools

- Up to 200 bp sequences
- 1 fmole per oligo

### Cloning-ready pools

- *(Coming Soon!)*

## KEY BENEFITS

### Highly Accurate Synthesis for Specific Targeting

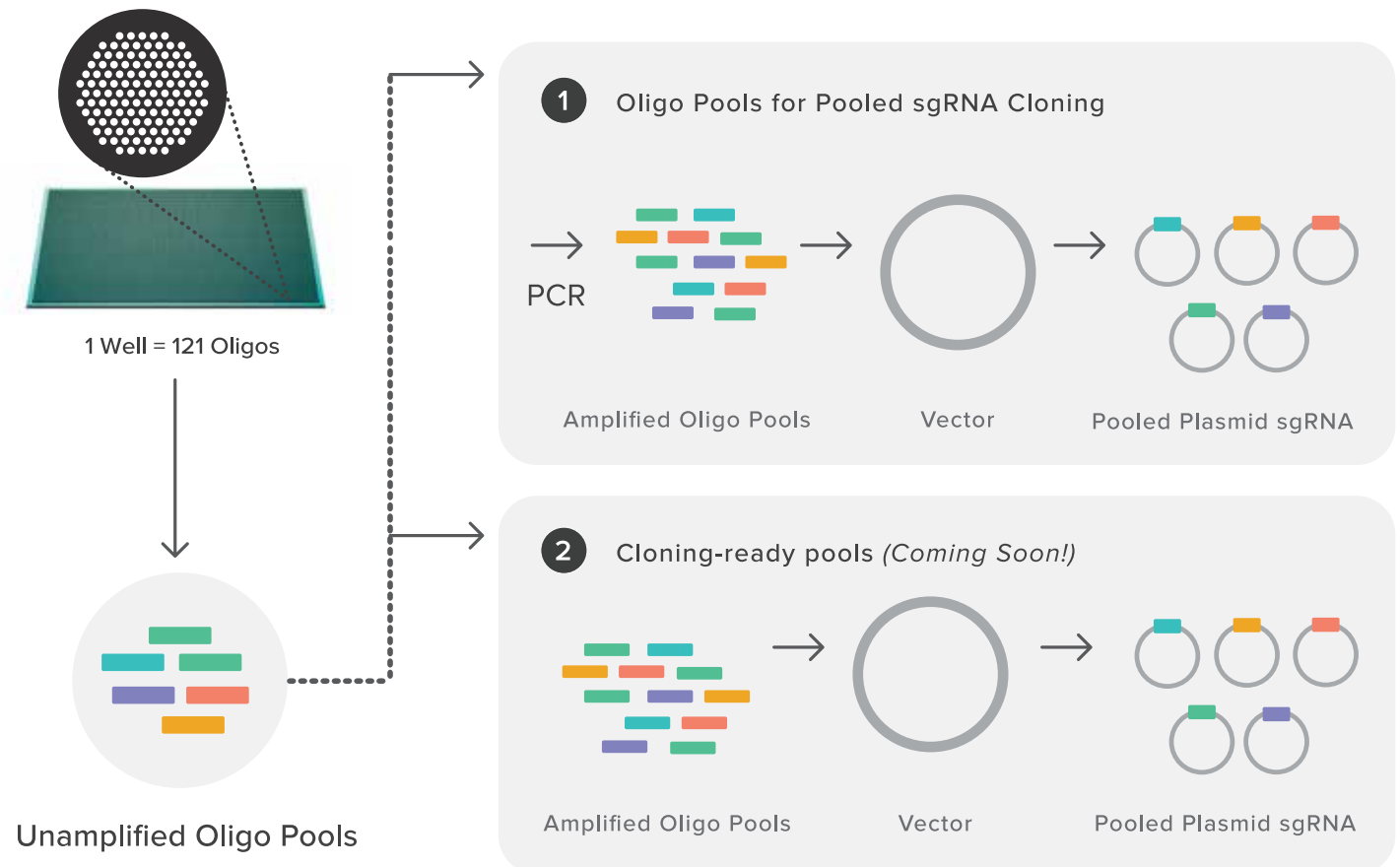
100% representation,  
1:500 synthesis error rate

### High Uniformity Ensures Guide Representation"

>90% of oligos represented  
within 4x of the mean

### Massively Parallel Synthesis for Efficient Screening

High diversity pools enable  
editing of thousands of targets  
in a single assay



# Highly accurate and uniform synthesis for specific and efficient targeting

Twist Bioscience's innovative silicon-based platform is transforming DNA synthesis. The 9,600 well platform enables massively parallel production of high quality, accuracy, and diversity oligonucleotide pools for specific targeting and efficient screening.

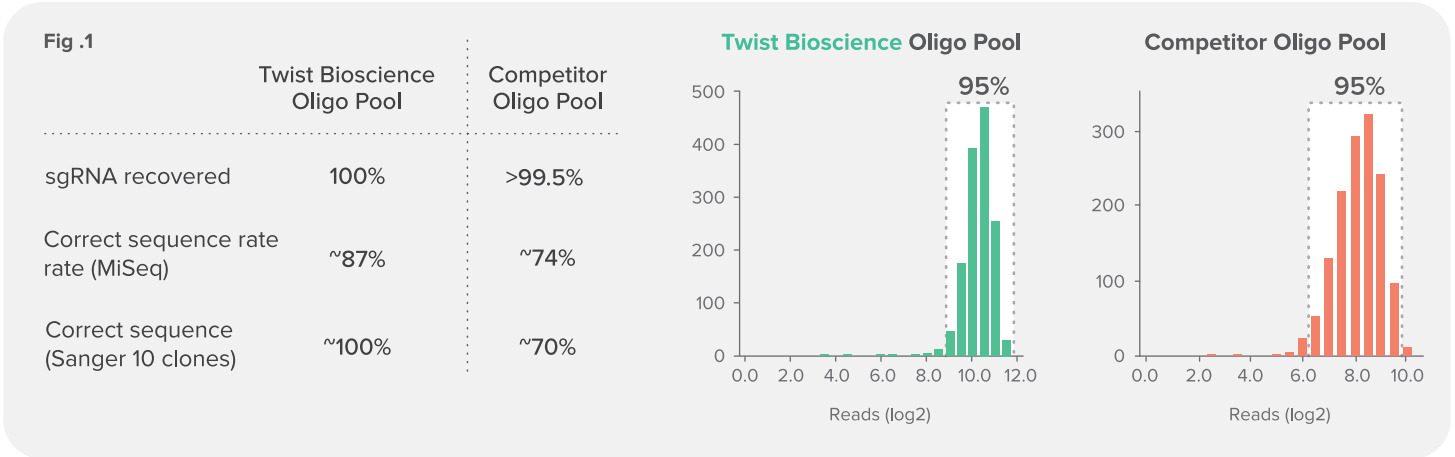


Fig 1. NGS-based validation of gRNA clones show 100% sgRNA recovery and 17.5% higher accuracy of synthesis compared to competitor's pool.

## CRISPR libraries designed by the experts, synthesized by innovators.

Desktop Genetics' proprietary algorithms leverage multiple scoring techniques, dozens of parameters and previous experimental outcomes to create the best set of guides for every library.

- Customized cell-line-specific libraries are optimized for experimental intent
- Deskgen libraries outperform human-created libraries
- Design to target frictional domains or for CRISPRi/CRISPRa

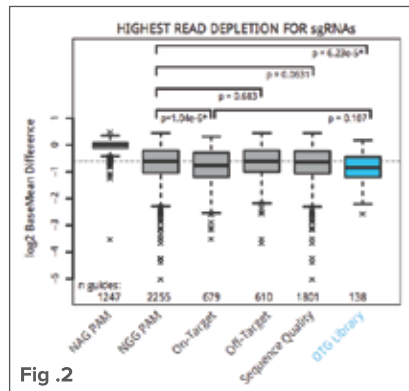


Fig 2. Desktop Genetics' library design system chains together multiple scoring techniques to deliver a library with more guides that exhibit greater depletion, and less guides that exhibit zero or negative depletion.

Think Big, Screen Once Let Twist Build for You



What can Twist do for you?  
Let us know at [sales@twistbioscience.com](mailto:sales@twistbioscience.com)

[www.twistbioscience.com](http://www.twistbioscience.com)

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