

Quality Management System

Every oligo we produce is analyzed using mass spectrometry, and we now produce up to 65,000 oligos a day. Quality control continues to be a key differentiator for us, built on a consistent investment in quality control processes and equipment over the past 30 years. We pride ourselves on using the same level of rigorous quality management and quality control processes at each of our production facilities worldwide to ensure that all IDT customers have access to the same high quality materials, regardless of where individual orders are filled.

Turn-around-time is another metric that sets IDT apart. We process and deliver the vast majority of our orders in 24 hours or less. We collect real-time data to ensure our production lines are meeting the exacting standards our customers expect. Our ISO 9001 certified systems form the basis of our strict, standardized approach to quality control across all manufacturing processes.

We specify a number of quality checkpoints along each part of the IDT value chain, beginning with our raw materials. Each facility has dedicated resources to verify the quality of every raw material input prior to use. During the manufacturing process, we continually monitor several key performance indicators in real time. IDT has specific protocols in place for immediate intervention whenever our systems detect a quality issue. All products are quality verified prior to being delivered to customers.

2015/2016 Highlights

In 2016, IDT completed a multi-year expansion at our production facility in Leuven that more than doubled production capacity there. As part of the expansion, we opened a new Good Manufacturing Practices (GMP) lab certified under ISO 13485 standards. This is our first GMP facility outside of the U.S., and going forward, our Leuven facility will help IDT bring expanded synthesis capabilities to customers in Europe, the Middle East and Africa. IDT also expanded the number of products we produce globally in 2016.

Through our implementation of new synthesis processes, all IDT customers will now have faster access to a wider range of our genomics applications.



Dr. Asaf Distelfeld presents his research to IDT scientists in Coralville, IA.

These milestones are the latest in a series of key product and production expansion activities across our operations. Other highlights include:

- Established direct sales offices in South Korea and Japan, improving our ability to sell our products in these markets and offer quick, reliable customer service with support in local languages.
- Expanded our overall manufacturing capacity by 30 percent in Coralville.
- Completed a \$750,000 renovation project at our San Diego, California site which increases capacity 40 percent over the next two years by adding additional warehouse and shipping space, a new analytical laboratory, and a reconfiguration of the existing manufacturing areas.
- Launched the Alt-R® CRISPR System product line, providing researchers with the most effective gene editing tools available.
- Introduced the xGen® Exome Research Panel, which has outperformed competitor's products, and therefore, provides more accurate genomics data for personalized medical applications.

Finding Genes to Help Feed Our Increasing Population

With our world in the middle of a population explosion—another 2 billion people are expected to be added to the globe in the next 50 years—researchers like Dr. Asaf Distelfeld are looking for solutions to feed this growing populace. Dr. Distelfeld is focused on improving the genetics of wheat—a crop that already supplies 20% of the global calories today.

Modern wheat varieties have very little genetic diversity, making them susceptible to diseases, and less likely to withstand the stresses of drought and declining soil fertility, problems associated with over-farming and climate change. Dr. Distelfeld is looking for a way to give our modern wheat these traits.

- Introduced PrimeTime® Gene Expression Master Mix, one of the most stable and cost effective qPCR master mixes on the market.

ACCESS TO GENOMICS APPLICATIONS

Sequencing the first human genome cost millions of dollars. Ongoing improvements in technology continue to reduce the cost of sequencing so that in some instances, scientists can now sequence an entire genome for as little as a few hundred dollars. IDT's quality oligos are one of the key contributors to the unprecedented decline in costs. IDT strives to provide quality products at a reasonable cost to facilitate genomics research for all scientists—even

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Through genome sequencing of an ancient variety of wheat called wild emmer wheat (WEW), Dr. Distelfeld and a consortium of researchers around the globe will isolate genes for traits that overcome the weaknesses of modern wheat.

IDT's NextGen sequencing products provide crucial reagents for decoding genomes, including those of WEW. Once identified, beneficial genes from WEW can be used to enhance our modern wheat using traditional crossbreeding methods. These future wheat varieties will have better disease resistance and higher yield under stressful environmental conditions.

IDT products are essential tools to unlock new strategies to make modern wheat able to withstand future pressures from global climate change and soil fertility decline so that we can produce enough food for our growing population.

small programs with little funding. IDT believes in advancing society's collective understanding of life and ways to sustain it.

Best Value

We pride ourselves on manufacturing and distributing the best oligo and application specific products that researchers can find in the market. Our goal is to provide customers with the ability to conduct experiments efficiently and effectively, from start to finish. Not having the right high-quality products can lead to incomplete or poor data, failed results, and unnecessary troubleshooting, which increases costs while slowing innovation.

IDT products deliver better experimental performance, which provides scientists with better data. They also receive better value through contact with our full-service support staff, who have expertise in a variety of genomics field applications. In addition, our research scientists often work directly with customers to help them find the right solutions to advance their research. The end result is that more laboratories around the world have better access to reliable and cost-effective genomics applications, leading to greater scientific discovery.