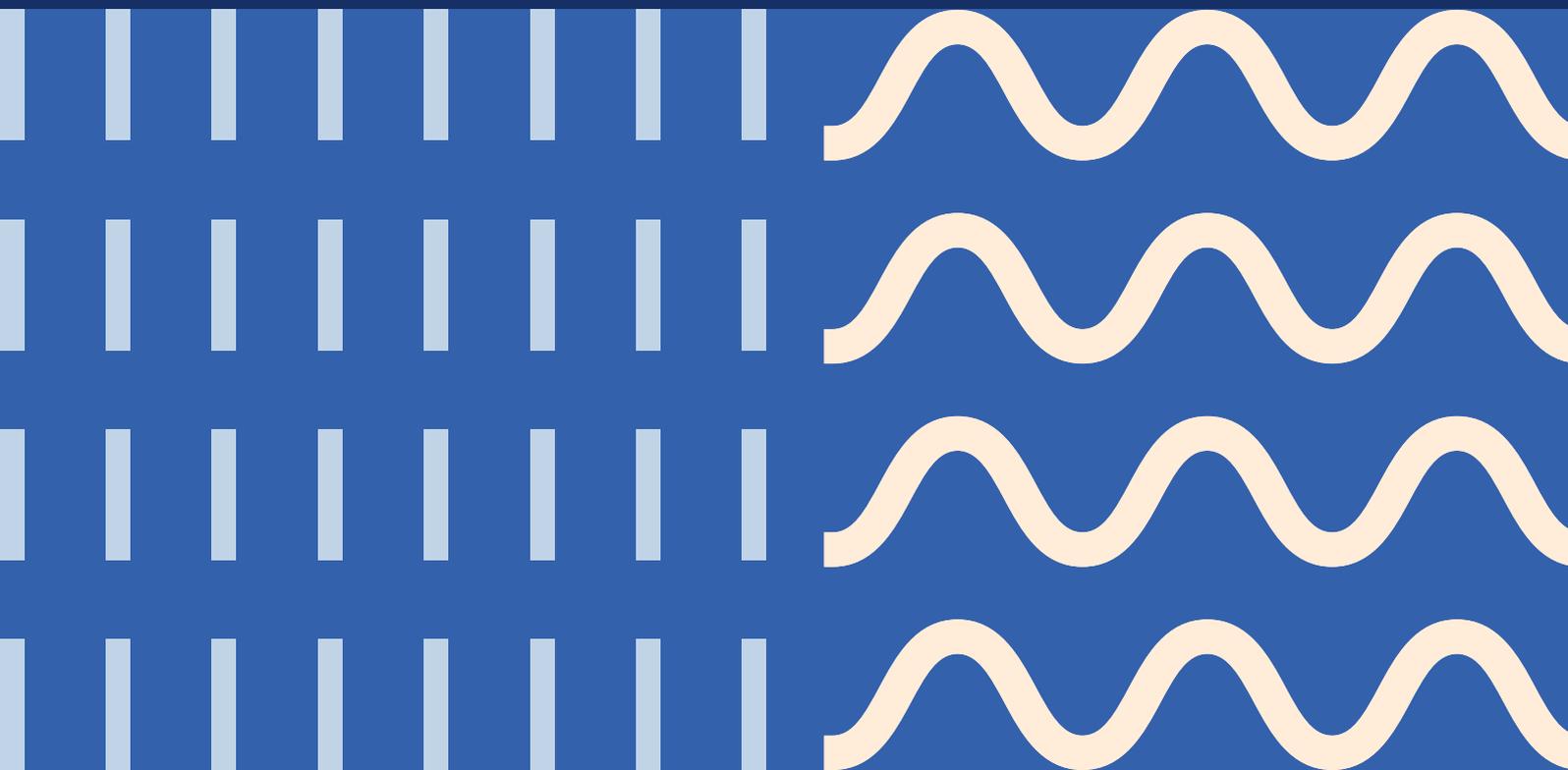




# Oligonucleotide CDMO services

Bring your RNA to life



# About Hongene

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Founded in 1998, we are a world-leading manufacturer of nucleic acid raw materials including nucleosides, modified nucleosides, nucleotides, phosphoramidites, GalNAc delivery molecules and enzymes.

we are your trusted partner when developing oligonucleotide mRNA and oligonucleotide drugs. Our products are integral to oligonucleotide drug pipelines around the world.

Powered by more than 1,600 employees globally, we have established comprehensive end-to-end oligonucleotide CDMO and mRNA capabilities, offering a seamless one-stop solution encompassing everything from raw materials to drug substance and fill and finish. Our services support preclinical research through to full commercialization.

**Our mission:  
Continuously innovating to make  
RNA medicines accessible and  
affordable for patients worldwide.**

# Hongene is the manufacturing powerhouse for the RNA therapeutics field

## Benefits of working with Hongene



### World-leading capacity

To meet future global demand for raw materials and oligonucleotide drugs



### Unmatched quality

The company's foundational value



### Our approach is customer-centric

Flexible, with a focus on the client and high quality service



### Our services are vertically integrated

From raw materials to drug product – a self-reliant supply chain



### As leaders we are continuously innovating

First adopters of game-changing nucleic acid manufacturing technologies including chemoenzymatic ligation



### A partnership with us is strategic

Solving global manufacturing challenges through collaboration

## Next-generation chemoenzymatic ligation

We can offer Hongene's proprietary chemoenzymatic ligation platform, enabling scalable, high-purity synthesis of complex oligonucleotides - including siRNA and long sgRNA - by combining enzymatic precision with chemical control, delivering cost-effective, sustainable solutions for next-generation RNA therapeutics.

# State-of-the-art facilities, capabilities and services

We are committed to providing comprehensive, world-class CDMO services for oligonucleotide therapeutics. Our state-of-the-art facilities, advanced equipment and quality control systems are the foundation of our ability to deliver exceptional results for your projects. We have invested heavily in cutting-edge technology to ensure

that we remain at the forefront of the industry, capable of handling the most complex projects with precision and efficiency. Our expertise spans the entire oligonucleotide manufacturing process, from raw material building blocks to drug substance and fill and finish, ensuring a seamless and reliable CDMO experience.

## We perform all analytics in-house with state-of-the-art equipment



ICP Mass Spectrometry  
PerkinElmer-NexION 1000



GC/MS Thermo TRACE  
1300/ISQ7000



Bruker 600 MHz  
NMR Spectrometer



UPLC/HPLC



UPLC/MS Waters  
Acuity+w ZQ2000



Q ToF

# Cutting-edge production facilities including solvent recovery capabilities

## Multiple mid-scale GMP production trains

### Synthesis



OP400, OP2000 & AK Bio synthesizers

### Purification



### UF / DF



### Lyo



## Multiple large scale GMP production trains

### Synthesis



OligoProcess 400 (x4) and 1800 mmol (x2) synthesizers

### Purification



### UF / DF



### Lyo



**25+** Years  
of Experience in  
the RNA industry

### State-of-the-art manufacturing facilities

support world-leading capacity  
for raw materials, and GMP  
oligonucleotide and mRNA  
drug substance and drug  
product CDMO services.

**5** Global sales  
offices

San Francisco  
Boston  
Hamburg  
Tokyo  
Shanghai

**1600**  
Employees

**2000+**  
SKUs

- Amidites
- NTP/dNTP
- Cap Analogs
- Cationic Lipids
- GalNAc
- Linkers
- Enzymes

**2** R&D  
Centers

San Francisco  
Shanghai

We offer a global footprint with  
state-of-the-art facilities



# Let's bring your RNA to life.

We are continuously innovating and advancing oligonucleotide therapeutics to make medicines accessible and affordable for patients worldwide. With our world-leading capacity, unmatched quality and customer-centric approach, we are the ideal partner to support your oligonucleotide journey.

**Together, we can unlock the full potential of oligonucleotide therapeutics and make a difference in the lives of patients worldwide.**

## Contact us today.



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