

# HIPRA BIOTECH SERVICES



# HIPRA GROUP AT A GLANCE

## 50 years

Experience in a wide range of biologics processes

## 5th

Global player in biologics for Animal Health

## 108

Registered products, including BIMERVAX®, of which 21 launched in the last 10 years

## 300+

Experience with 300+ pathogens, 1,500+ cell lines and 1,300+ virus lines

## €500M

Invested in last 8 years in state-of-the-art facilities & equipment

## ~900

Lots of Drug Substance made each year with >95% success rate

## ~50M

Vials formulated and filled each year

## 15%

Of sales reinvested yearly in R&D

## 100%

Privately owned, with a long-term partnership & investment mindset

## 2,600

Total employees globally

## 400

R&D scientists, analysts and biotechnologists (15% of total staff)

## 1,000

Mfg & QC operators, analysts & process engineers

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End-to-end internal capabilities from cell line development to commercial manufacturing

# HIPRA BIOTECH SERVICES

Evolving your  
biologics through  
our **expertise,**  
**excellence** and  
**engagement**

HIPRA Biotech Services is HIPRA's CDMO division, bringing over 50 years of scientific and technical excellence to pharmaceutical and biotechnology companies, offering comprehensive contract development and manufacturing services in a wide range of biologics technologies and modalities.



Over 50 years  
of expertise in  
One Health



Experience with a wide  
**range of technology**  
platforms in highly  
complex biologics  
processes



Scientific and technical  
**excellence** ensuring  
flexibility, agility and  
seamless integration  
across all stages of the life  
cycle



**Unwavering commitment  
to quality** as demonstrated  
by GMP certificates and  
excellent inspection record

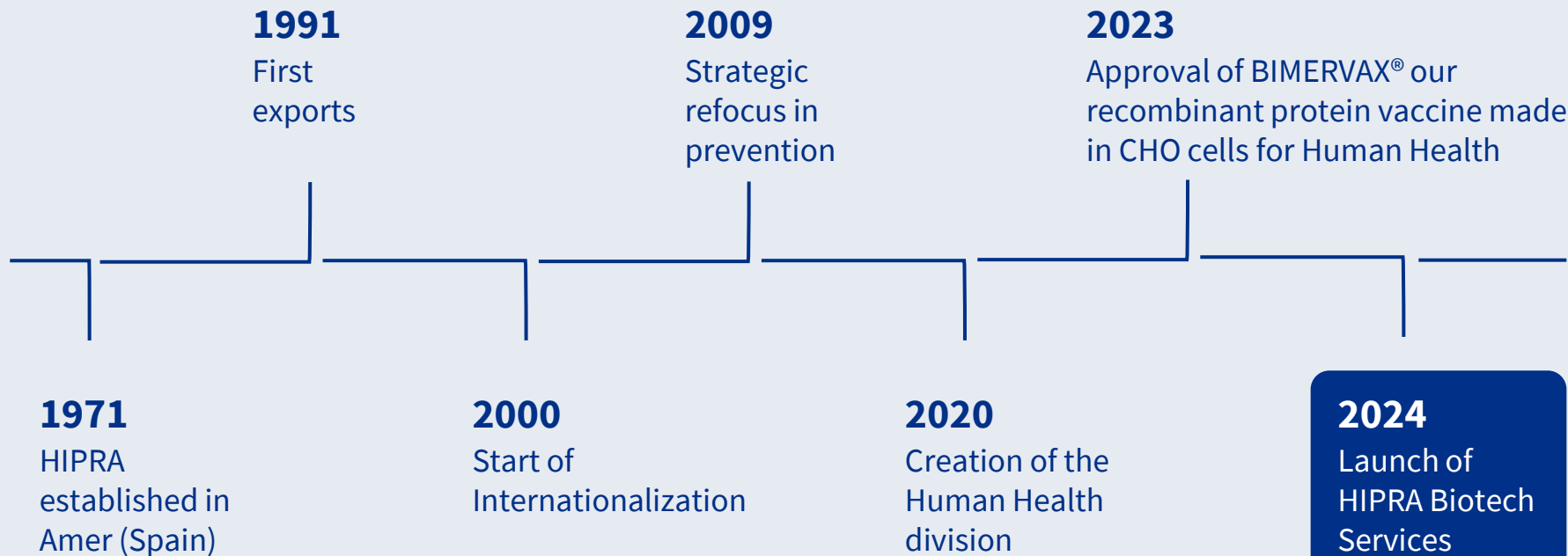


**State of the art facilities in  
close proximity**, in the  
European Union



**Unlimited optimism to  
make your project our own**  
and significantly enhance  
and accelerate your  
chances of success

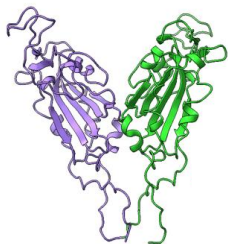
# OUR HISTORY



# OUR REGULATORY TRACK RECORD

- **EU GMP certified for almost 30 years**
  - First certified in 1997
  - Most recent EU GMP certification July 2022
  - Next inspection in May 2025
- **108 products approved by the EMA, including BIMERVAX®**
- **Ongoing project to achieve FDA readiness by mid-2026**

# OUR CREDENTIALS IN HUMAN HEALTH



## **BIMERVAX<sup>®</sup>, our COVID-19 vaccine**

- Bivalent recombinant protein vaccine manufactured in CHO cells
- Unique structure enabling protection against 2 variants in a single molecule
- 100% developed and manufactured by HIPRA (end-to-end)
- Financed entirely with own resources
- Development started May'20, standard Marketing Authorization March'23



## **EU-FAB, a framework contract setting up a European network for sufficient and agile manufacturing capacities for pandemic preparedness**

- HIPRA selected as one of four strategic partners of Health Emergency Preparedness and Response Authority (HERA) for the EU-FAB framework
- Selection valued HIPRA's vast experience in a wide variety of recombinant protein vaccines and state-of-the-art development & manufacturing facilities

# OUR CORPORATE ESG PLAN



GO SUSTAINABLE

## GO GREEN

Decarbonization and  
climate neutrality

Water management

Efficient use of materials  
and components

## GO PEOPLE

Access to health

Fostering talent

Responsible Innovation

Sense of belonging

Safe and healthy work

## GO ETHICAL

Regulatory compliance

Responsible sourcing and  
supply chain

Ethical behaviors towards  
all stakeholders

# OUR AVAILABILITY AND TIMELINES



**We have capacity available *now*** to start development and commercial manufacturing projects in mammalian, microbial, and aseptic fill & finish



**We are able to hit 12 months** from Gene/Strain to Drug Substance as demonstrated by BIMERVAX® and our typical lead times in AH



**With an additional 3 months we can get to DP** (some of the work would happen in parallel to DS); timelines for just doing DP will depend on amount of development work needed



# OUR SERVICES

## Development

From early discovery to clinical manufacturing production, we accelerate each stage of biologics drug development with expertise and flexibility

Development labs feature high-throughput bioreactor systems (Ambr®15 and Ambr®250) for design of experiments, small- and mid-scale benchtop bioreactors, Cobas® analyzers (for clinical chemistry and immunochemistry assays), and advanced tools for cell line development, complemented by a specialized area for process development and a dedicated GMP area for early-phase clinical batch production

## Manufacturing

We provide robust and flexible pharmaceutical manufacturing and quality control services at our state-of-the-art GMP certified facilities

DS facilities feature top-of-the-line single-use 500L cell culture bioreactors, 2000L microbial fermentation single-use bioreactors and stainless-steel fermenters, single-use chromatography, tangential flow filtration, and centrifuges. DP facility features a high-speed isolator liquid vial filling line with 100% IPC.

QC labs feature a wide variety of equipment enabling a wide range of methods; equipment is the same as used in the Analytical Methods development lab

# DEVELOPMENT SERVICES OVERVIEW



## Cell Line and Strain Development

- **Antigen discovery** including viral and bacterial antigens, recombinant proteins, peptides and monoclonal antibodies
- **Platform development** such as adherent and suspension cell culture (mammalian, avian, or insect) and microbial culture (bacteria or yeast)
- **Accelerated development of cell lines** for recombinant proteins and monoclonal antibodies production, optimizing the timeline from concept to production
- **Stability studies** to assess and ensure the longevity and reliability of biologic products



## Process development & scale-up

- **Process development, validation and industrial scale up**, from small-scale and early stages to commercial batch production, covering both Drug Substance and Drug Product
- **Formulation development**, including adjuvant selection where applicable, and scaling these formulations for industrial production
- **Strategic design of protocols for validation process**
- **Technology transfer** of production methods, inbound and outbound, to enable seamless transitions and scaling up of production



## Analytical methods development

- **Development and validation of analytical methods** for both drug substance and drug product to ensure consistent product quality in strict compliance with GMP regulations
- **Transfer of analytical methods** to the Quality department, ensuring that all methods are properly implemented and validated for routine quality control
- **Specialized analytical techniques**, such as ELISA, qPCR, peptide mapping, HILIC, sterility and endotoxin testing, SEC-HPLC, and CE-SDS, among others



## Preclinical development studies

- **Design and performance of detailed protocols** for in-vivo studies
- **Development and optimization of appropriate animal models** tailored to the specific requirements of the research
- **Development and validation of analytical methods** to assess the immunogenicity and safety of the products
- **Execution of preclinical development studies** in accordance with Good Laboratory Practices
- **Preparation of final reports of in vivo studies**

# Cell line and strain development



Drug discovery capabilities, including viral and bacterial antigens for vaccine development, recombinant proteins (such as mAbs), peptides, enzymes, and more

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Cell line and strain development tailored for both cell culture (mammalian, avian, or insect) and microbial (bacterial and yeast)

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Accelerated cell line development pipeline “from gene to manufacturing scale” for the production of recombinant proteins and monoclonal antibodies

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Stability studies

# Process development and scale-up



Process development, validation and industrial scale-up

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Formulation development

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High-throughput, small-scale bioreactors (e.g., Ambr® system) and robust scale-up methodologies

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Strategic workflow for process characterization and validation

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Efficient technology transfer





# Analytical methods development

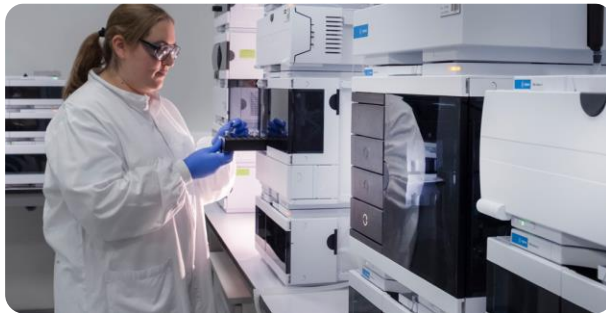


Development and validation of analytical methods

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Smooth transfer of analytical methods to commercial QC thanks to identical equipment between R&D and QC

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Broad analytical capabilities and expertise to assist in all phases of process development through to manufacturing

# Preclinical development studies



Design and performance of detailed protocols for *in-vivo* studies, conducted in-house

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Development and validation of analytical methods for preclinical studies

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Development and optimization of appropriate animal models

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Execution of preclinical development studies and reporting

# MANUFACTURING SERVICES OVERVIEW



## Cell culture platform

- Adherent and suspension cell lines including production of **recombinant proteins, peptides, monoclonal antibodies, and viral antigens**, using mammalian, avian, or insect cell lines
- GMP master cell bank production



## Microbial platform

- *E. coli* and yeast protein expression systems including microbial culture, production of **peptides**, and production of **recombinant proteins**
- GMP master cell bank production



## Aseptic Fill and Finish

- Comprehensive **formulation services** for sterile injectable drug products
- Fill-and-finish operations for **liquid vials**
- Isolator line with 100% IPC, ensuring compliance with stringent sterility and quality standards throughout the process

# Cell culture platform



Our cell culture manufacturing facilities are designed for large-scale, late-stage, and commercial biopharmaceutical production, offering scalability, efficiency, and high-quality solutions for complex products

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## Upstream

- 7 x 50L single-use bioreactors
- 13 x 500L single-use bioreactors
- Single-use and stainless-steel complementary equipment

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## Downstream

- 3 chromatography systems
- 3 tangential flow filtration systems
- Single-use systems for downstream processing



# Microbial platform



Our microbial manufacturing facilities support large-scale, late-stage, and commercial production with the flexibility needed for diverse microbial-based biopharmaceutical processes

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## Upstream

- 8 x 2,000L single-use bioreactors
- 4 x 200L single-use bioreactors
- 4 x 2,000L stainless-steel fermenters
- 4 x 100L stainless-steel fermenters
- Single-use stainless-steel complementary equipment

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## Downstream

- 5 CIP-SIP continuous centrifuges
- 2 chromatography systems
- 2 tangential flow filtration systems
- 1 high-pressure homogenizer
- Single-use systems for downstream processing

# Aseptic Fill & Finish



Our aseptic fill and finish facilities are designed for late-stage clinical and commercial production, ensuring the highest standards of product integrity and compliance with global regulations

## Formulation

- 4 x 1,200L formulation reactors
- NIRO Soavi high-pressure homogenizer
- 2 x 2,000L single-use mixers
- 4 Hi-shear agitators
- Single-use and stainless-steel complementary equipment

## Liquid vials fill & finish

- Skan isolator technology
- High-speed (24,000 u/h) Bausch+Ströbel filling line with 100% IPC
- From 2R to 10R liquid vials

# FACILITIES LOCATIONS

Our state-of-the-art GMP certified facilities cluster is located in Spain (EU), with biologics development and manufacturing centers close to each other.

This setup allows us to integrate the entire value chain in one location, offering exceptional flexibility and agility in decision-making and manufacturing processes.

Strategically positioned for efficient distribution globally, our facilities benefit from a robust logistics network—encompassing airports, ports, and highways—to ensure smooth and timely deliveries worldwide.

## Headquarters (Amer)

30min from Girona and 1h30  
from Barcelona

Headquarters offices

Microbial Manufacturing

Cell Culture Manufacturing

Aseptic Fill and Finish

QC Labs

Preclinical facilities

Warehousing

## Campus HIPRA (Aiguaviva)

10min from Girona and 1h from  
Barcelona

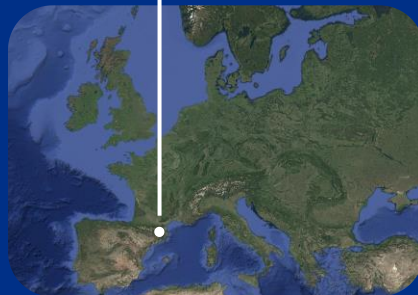
R&D Labs and Pilot Plant

Microbial Expansion

Cell Culture Expansion

QC Labs Expansion

Additional offices





# Headquarters

Amer, Girona, Spain



**Formulation  
Aseptic Fill & Finish**

**Quality Control  
Labs**

**Headquarters  
Offices**



**Cell Culture  
Manufacturing**

7 x 50L single-use bioreactors  
13 x 500L single-use bioreactors

**Microbial  
Manufacturing**

8 x 2,000L single-use bioreactors  
4 x 200L single-use bioreactors  
4 x 2,000L stainless-steel fermenters  
4 x 100L stainless-steel fermenters



**Preclinical  
facilities**

**Diagnostics**



# Headquarters

Amer, Girona, Spain

Headquarters  
Offices

Quality Control  
Labs

Formulation  
Aseptic Fill & Finish

Microbial Manufacturing  
Mammalian Manufacturing





# Headquarters

Amer, Girona, Spain

## Microbial Manufacturing

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4 x 100L stainless-steel fermenters

## Cell Culture Manufacturing

7 x 50L single-use bioreactors  
13 x 500L single-use bioreactors

Dedicated Facilities for Animal Health





# Headquarters

Amer, Girona, Spain

**Preclinical facilities**

**Diagnostics**





# Campus HIPRA

Aiguaviva, Girona, Spain

## Microbial Manufacturing

8 x 2000L single-use bioreactor  
4 x 200L single-use bioreactor  
4 x 2000L stainless steel fermenter  
4 x 100L stainless steel fermenter  
+ spare area for further expansion

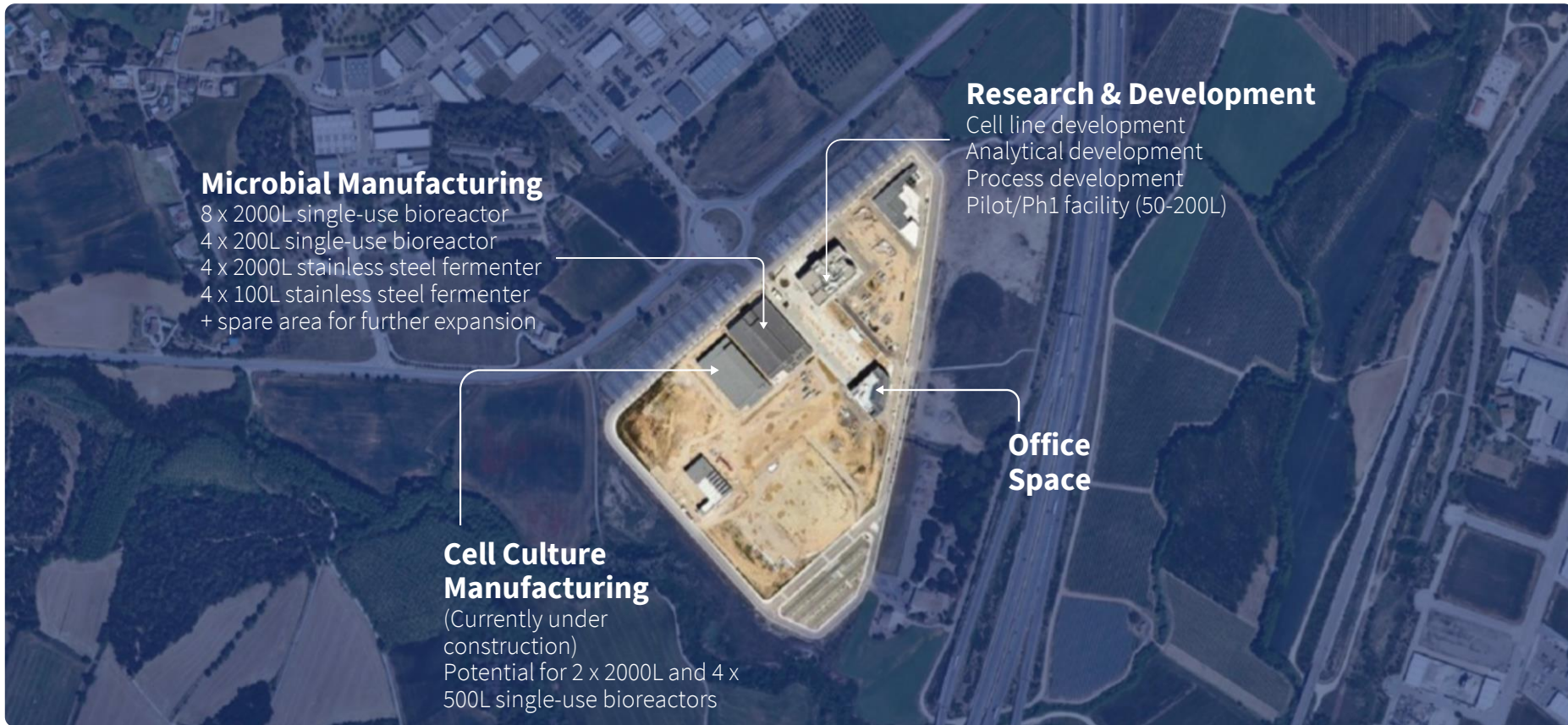
## Cell Culture Manufacturing

(Currently under construction)  
Potential for 2 x 2000L and 4 x 500L single-use bioreactors

## Research & Development

Cell line development  
Analytical development  
Process development  
Pilot/Ph1 facility (50-200L)

## Office Space





# Campus HIPRA

Aiguaviva, Girona, Spain

## Cell Culture Manufacturing

(Currently under construction)  
Potential for 2 x 2000L and 4 x  
500L single-use bioreactors

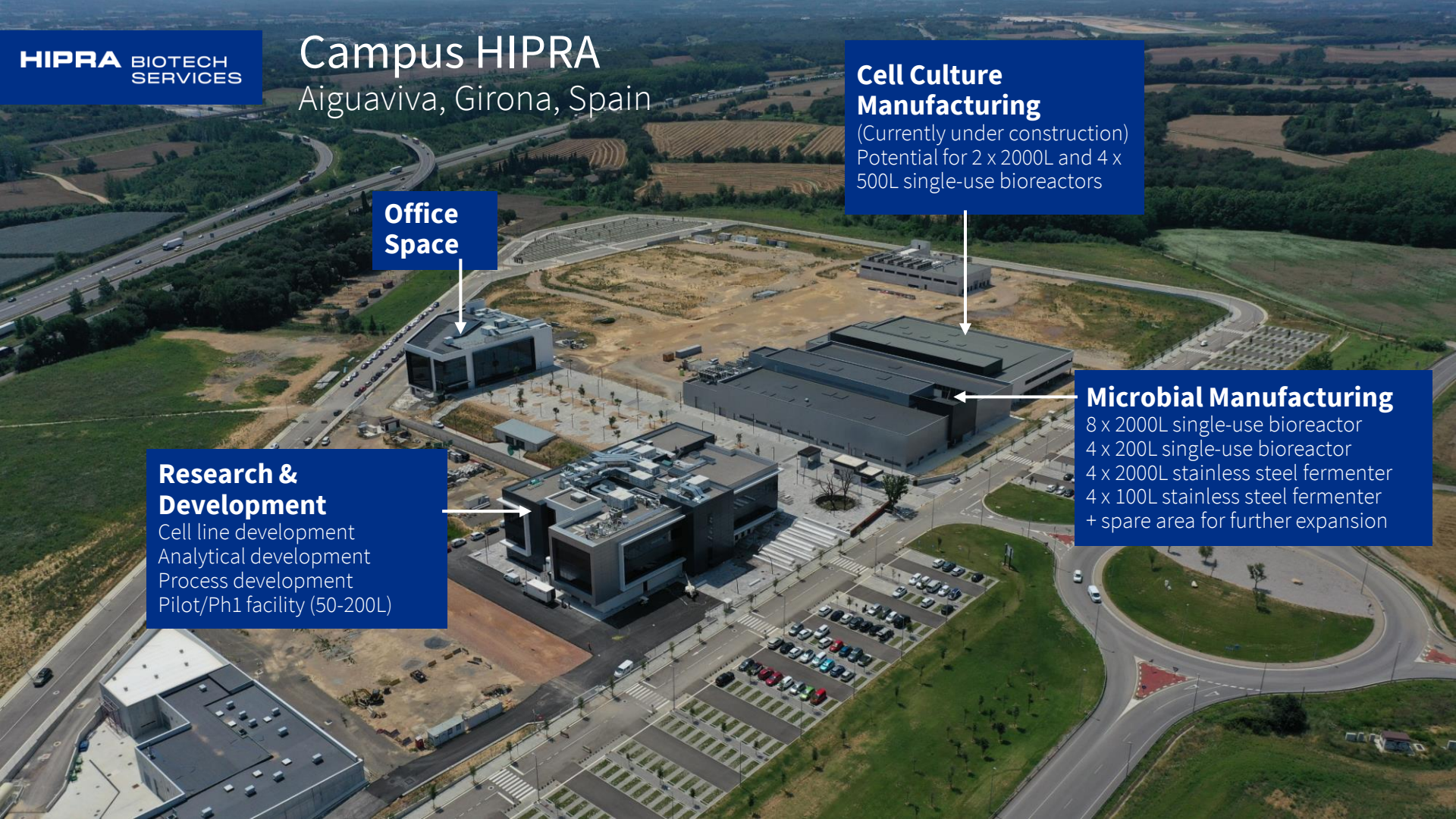
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## Research & Development

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4 x 200L single-use bioreactor  
4 x 2000L stainless steel fermenter  
4 x 100L stainless steel fermenter  
+ spare area for further expansion



# HIPRA BIOTECH SERVICES

## Come Visit Us!

Schedule an in-person visit today to meet our team and see our world-class facilities. Meanwhile, [click for Virtual Tour](#).

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