# CELL ST.

Cell culture media For better lives

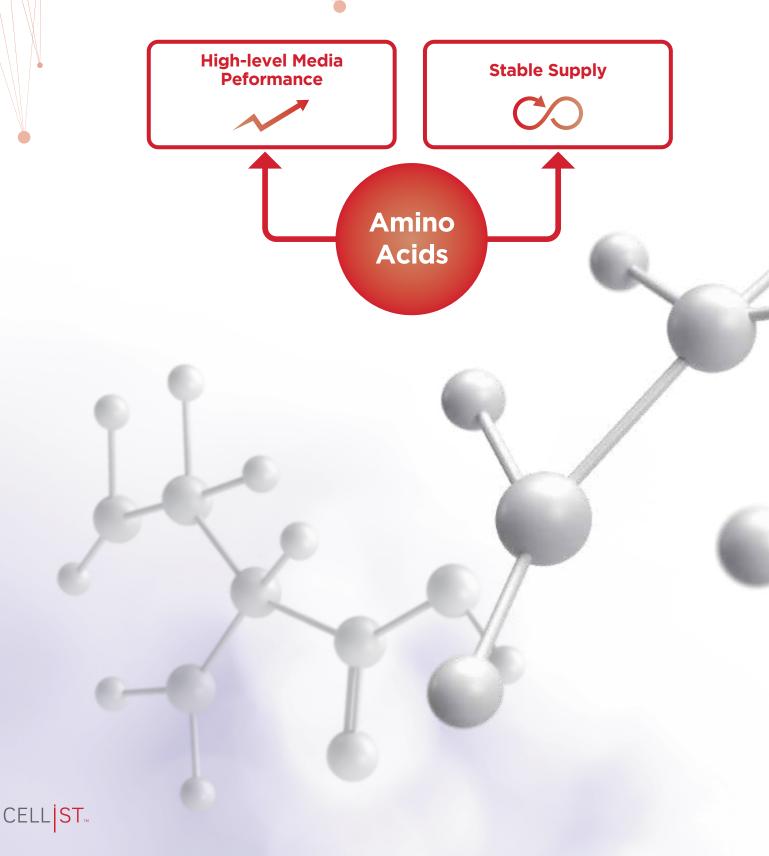
Custom Media Development and Manufacturing Service Shortcut to Official Channel



### **Custom Media Development and Manufacturing Service**

#### Unlock Amino Acids Power For Your Success

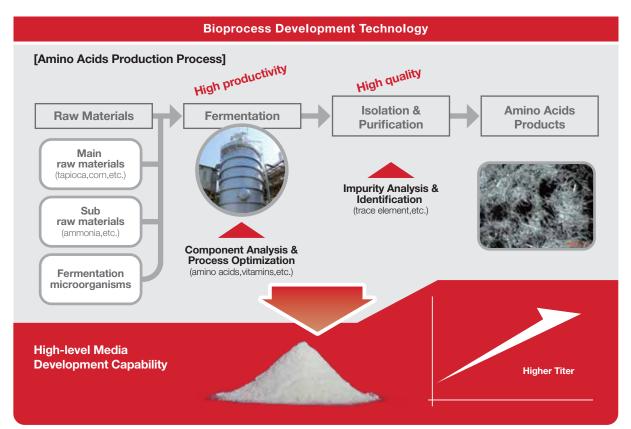
Our capabilities in amino acid development and manufacturing as the world's No.1 amino acids supplier can lead to your success in terms of both optimal customization and stable supply of cell culture media.





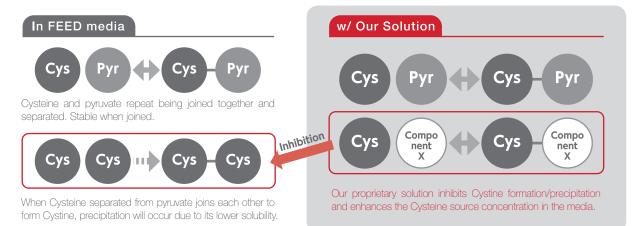
## High-level cell culture media performance by amino acids technology

With over 60 years of experience in amino acids science, the Ajinomoto Group has advanced cell culture media development capabilities backed by bioprocess development technologies, allowing complete support for both media and process optimization to our Biopharma customers.



#### **Cysteine Stabilization Technology**

We have a variety of high-level Cysteine technology, which allows us to offer solution such as titer improvement by Cysteine stabilization.

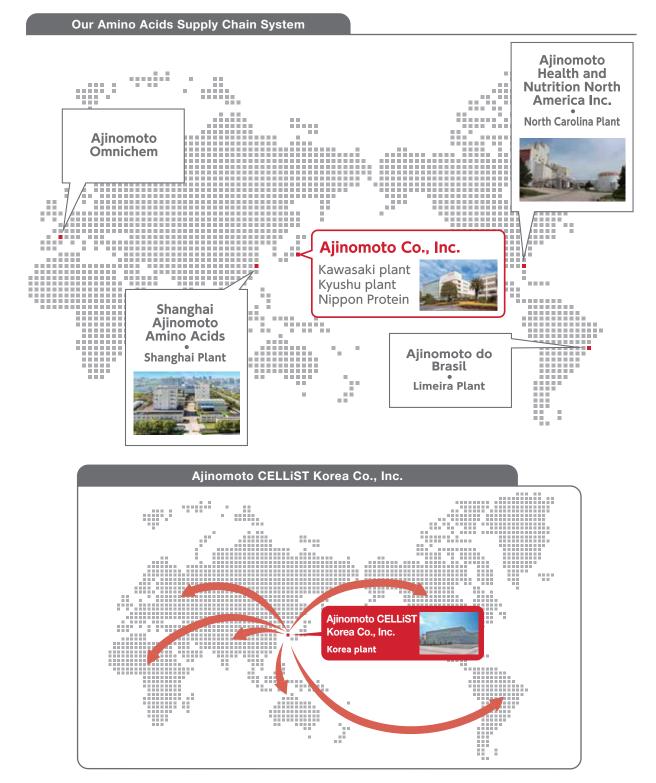


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#### Cell culture media stable supply to customers with own amino acids global supply-chain

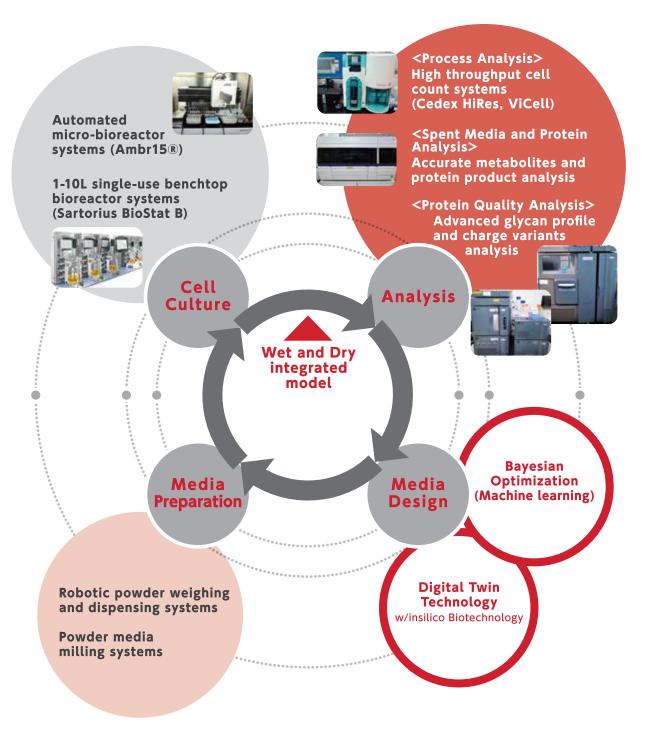
· Amino acids in-house manufacturing & procurement

· Dual-source policy for most of amino acids products for business continuity



#### **Customization flow with advanced resources**

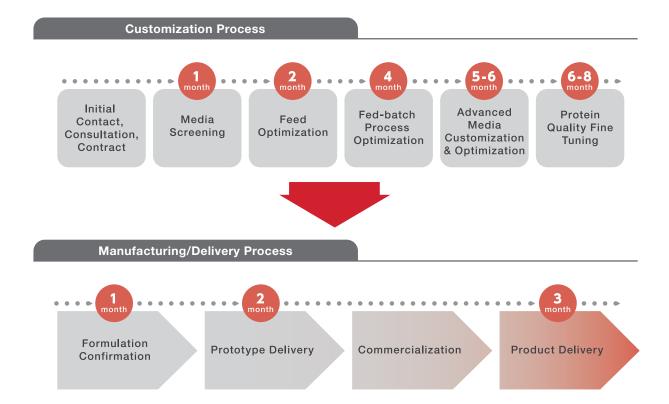
We offer end-to-end solutions for achieving optimal and rapid customization using advanced automation and high throughput systems.



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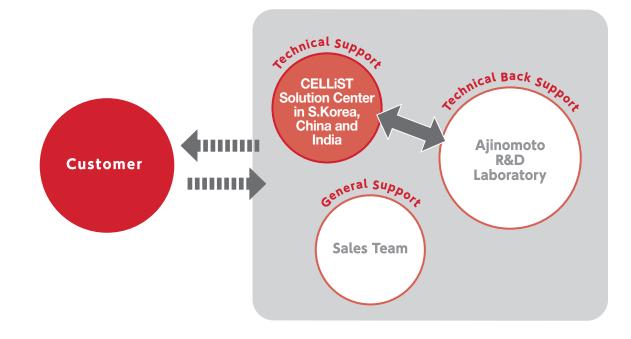
#### **Service Timeline**

We are flexible to meet your timeline and requirements.



#### **Service Support System**

We offer comprehensive customer-oriented support in one team.



#### Our Service Track Record

#### Track Record in Pipelines

Number of pipelines adopting our customized media as of May 2022

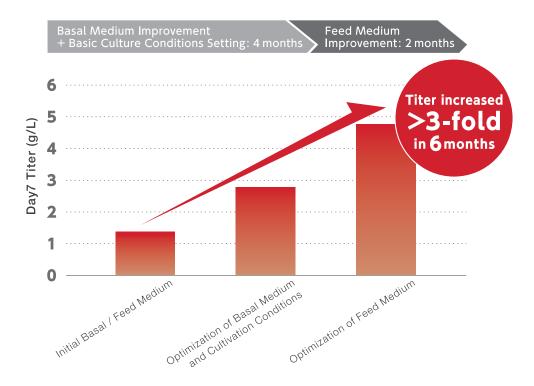
Stage	Pre-Clinical	Clinical	Marketed
Pipelines	27	12	2

#### Daiichi Sankyo Co., Ltd.

Rapid analysis of a newly established CHO cell line was followed with intensive media development process, leading to significantly improved productivity in a short period of time.

Our unique capabilities allow for strong and flexible support to the customer:

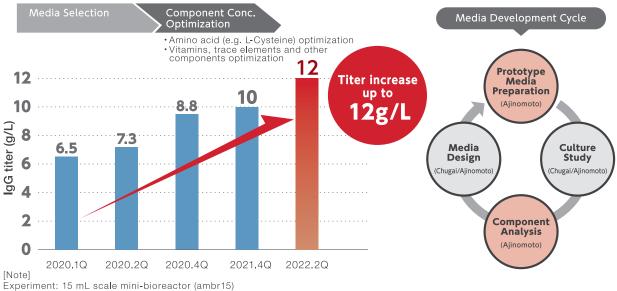
- Development can be quickly initiated with starting medium optimal for the customer's cell line.
- Candidate media can be rapidly evaluated by an array of industry-leading high throughput systems supported by experienced researchers.
  Complete, high-throughput analysis of spent media, including amino acids, vitamins, minerals and other components, allows for a customized and efficient optimization.
- DoE and statistical analysis, combined with our long experience in media formulation, leads to rapid design of optimal composition.
- Keeping in mind customer goals and deadlines, our professional development team supports the customer throughout the process up to commercialization stage.



#### Chugai Pharmaceutical Co., Ltd.

Efficient media development and optimization cycles throughout the collaboration with Chugai led to drastic increase in productivity, reaching high protein titer of 12 g/L. In the development process, our proprietary L-Cysteine technology, allowing high concentration and liquid stability, contributed to the large improvement in titer.

In addition, media performance was further enhanced based on in-house knowledge\* and additional spent media analysis, optimizing concentrations of potassium and phosphate, among other components.

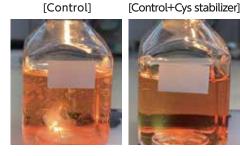


Antibody production process with Chugai's model cell line is different between orange and blue bars.

#### **Our L-Cysteine technology**

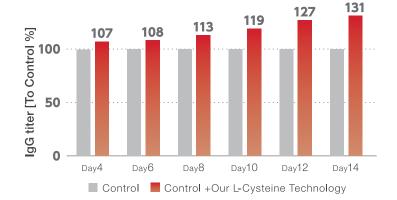
#### **Precipitation Inhibition**

Our proprietary composition stabilized liquid media, enhancing L-Cysteine.



#### Titer Improvement

L-Cysteine high-concentration with liquid-stability increased titer.



#### Ajinomoto CELLIST Korea Co., Inc. Introduction





Songdo Factory (Incheon, S. Korea)

Ajinomoto CELLIST Korea Co., Inc. is located in Songdo, Incheon, and provide services, such as development and manufacture of animal cell culture media and contract manufacture of media.

#### Contact

HP Https://en.ajinomotocellistkorea.com Mail sales@ajinomotocellist.com

#### Manufacturing Capacity

Ajinomoto CELLIST Korea Co., Inc. manufacturing facility is equipped with large-scale production facilities and management systems in compliance with the current Good Manufacturing Practice (cGMP). We provide customized manufacturing services of various powder formulations according to customers' needs, from specifically-customized amino acid mixture supplements to bulk production of commercial growth and feed media.

#### Manufacturing Capability

:Various production scales and packaging options are available.

Container(L)	20L	80L	250L	1,000L	2,000L
Scale(kg)	~10kg	~50kg	~100kg	~450kg	~1,000kg

#### Annual Production Amount

:Approximately 150,000 kg (based on 1,000 kg x 150 batches)

#### Quality Check Test Item

- Appearance ( powder, after dissolving )
- Loss on drying
- pH ( after dissolving )
- Osmotic pressure ( after dissolving )
- Cell culture test
- Endotoxin test
- Mycoplasma



#### **CELLIST Solution Center Introduction**

CELLIST Solution Center (CSC), a part of Ajinomoto CELLIST Korea Co., Inc. provides troubleshooting and support services to our Korean and global customers, in addition to R&D work for improving our CELLIST media products. CSC Lab employs hi-tech equipment that allows for rapid cell culture media development and customization. Through the use ofcutting-edge approaches such as multi-omics analysis, 'Digital Twins' bio-simulations and Al tools, both media and process can be optimized and tailored specifically to each customer's requirements. In addition to upstream development, downstream support such as protein quality analysis and protein purification are provided, as well as scale-up support.

#### $\langle \text{CELLIST Solution Center in S. Korea} \rangle$

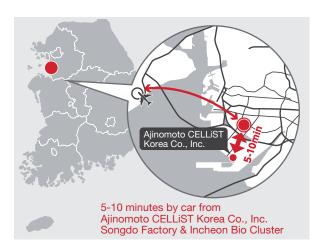
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#### Contact

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**CELLIST Solution Center in S. Korea** 



#### $\langle CELLiST Solution Center in China \rangle$

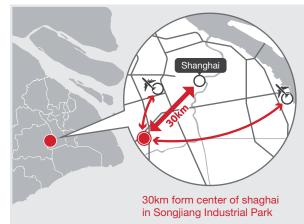
Address : Room 501, 9 Hao, 13 Zhuang, Jiangtian East Road 185, Songjiang, Shanghai, China

#### Contact

Mail mingqi\_fan@ajinomoto.com.cn



**CELLIST Solution Center in China** 





#### Ajinomoto R&D Laboratory

Research Institute For Bioscience Products & Fine Chemicals, our main R&D laboratory in Kawasaki, Japan. Over 300 researchers are seeking for new possibilities and solutions of amino acids.



www.ajinomotocellistkorea.com