ASIMOV

CHO Edge System

Integrating genetic tools and data-driven models to routinely achieve titers of 8-12 g/L across modalities

High titer

Routinely achieves 8-12 g/L for both IgG monoclonal antibodies and more complex bispecific architectures.

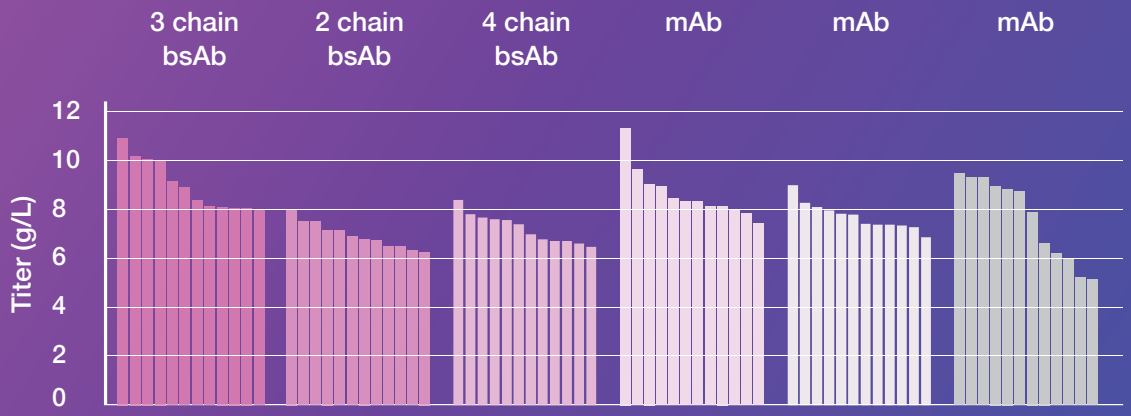
Lower risk

If the RCB generated for a mAb is under 5 g/L, the CLD campaign and all commercial use rights are free.

Regulator approved

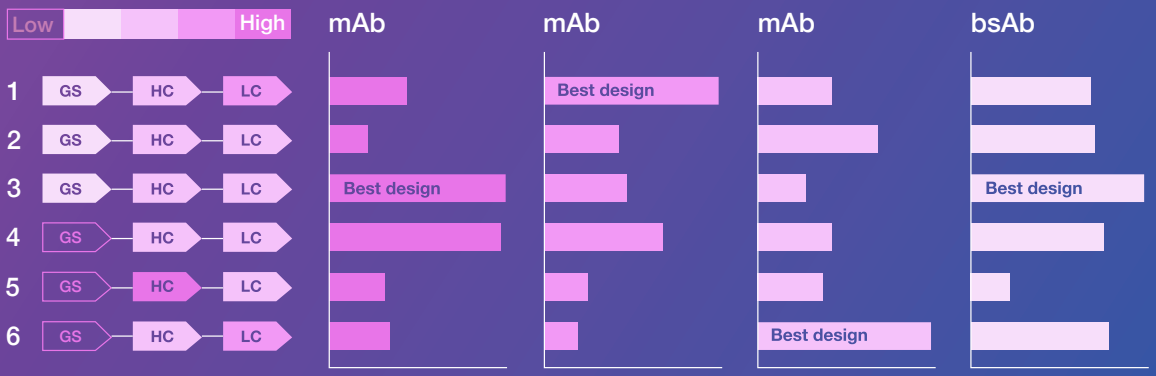
IND approved system and a team with decades of experience in CLD and product commercialization.

System performance



Top clone titers (g/L) for six different molecules analyzed in a 14 day Ambr® 15 platform process. Clones maintain >80% titer stability over 75 generations.

Exploring vector design space



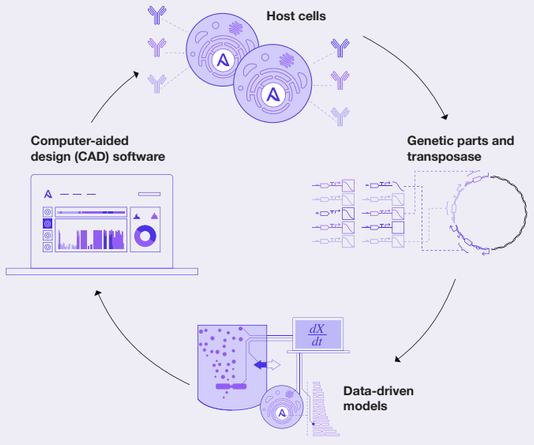
Optimal vector design is unique to the molecule.

Visit **www.asimov.com/CHO** to learn more

WHAT YOU GET

System licensing

By licensing Asimov's CHO Edge System you'll gain access to our suite of technologies for commercial-grade cell line development in your lab.



Host cell lines

We developed a glutamine synthetase (GS) knock-out cell line for producing antibodies, multispecifics, and other protein modalities.

To enable glycan engineering, we also generated a GS/fucosyltransferase (FUT8) double knock-out line that yields 100% afucosylated antibodies with a 10-fold boost in antibody-dependent cellular cytotoxicity (ADCC).

Genetic parts library and hyperactive transposase

A growing library of thousands of characterized genetic parts for use with our proprietary CHO host cell line and hyperactive transposase.

These parts span different cell functions, including promoters, untranslated regions, epigenetic insulators, signal peptides, polyadenylation signals, inducible systems, genome editors, and more.

Computer-aided vector design with Kernel

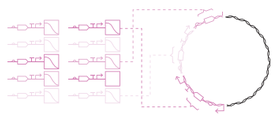
Asimov's computer-aided design (CAD) software, Kernel, can be used to optimize vector designs. It achieves this through the use of our proprietary biophysical/AI models of transcription, translation, secretion, and more.

TIMELINE

Cell line development services

Our experienced team uses the CHO Edge System and state-of-the-art equipment to perform CLD.

Panel of expression vectors designed for your amino acid sequence



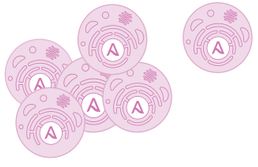
CLD start



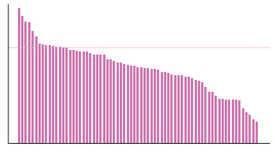
Host transfected

Stable pool generated

3 weeks



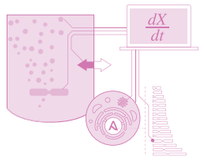
Clones characterized and banked



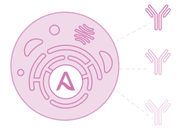
8 weeks

Bioreactor Ambr® 15 run

12 weeks



Research cell bank release



14 weeks

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Visit **www.asimov.com/CHO** to learn more

Two ways to access CHO Edge

We transfer the system to your lab

We ship you our CHO host and grant software access
Vials of GMP-banked CHO cells with regulatory documentation are shipped to you, and your team is onboarded into our design software, Kernel.

You design plasmids for your molecules
Using our parts and computational models, you design a set of expression vectors. We're here to help if needed. Optionally, we can build and ship you plasmids.

You perform cell line development
You transfect and generate stable cell lines, with technical support from our team as needed.

We perform CLD services in our lab

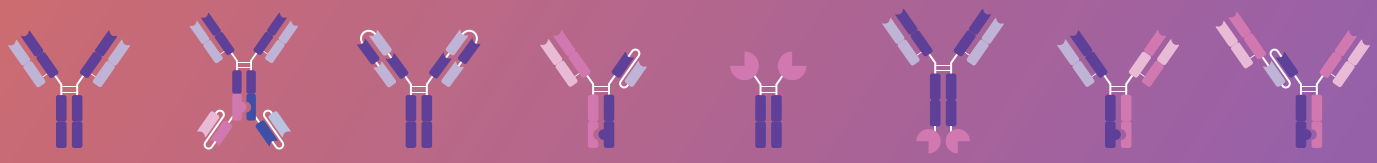
We perform cell line development for your molecules
Your cell line development campaign begins with your amino acid sequence. CLD is done at our site with industry-leading timelines.

We ship you clonal, stable cell lines
Vials of research cell banks are shipped to your lab, the process is transferred to your site, and documentation for your regulatory filing is supplied.

Optional add-on services and support
Early-look material generated in benchtop bioreactors, stability study on top clones, upstream process optimization, master cell banking coordination, and tech transfer support into GMP environments.

We support diverse molecule types

Including IgGs, bsAbs, biosimilars, and ADCs



From transfection to RCB within 14 weeks

5 g/L or It's Free

Guaranteed IgG titers with Asimov Cell Line Development
Routinely achieves 8-12 g/L across molecule architectures

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Visit **www.asimov.com/CHO** to learn more

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