Scientific Partnering with Horizon Discovery

horizon™
INSPIRED CELL SOLUTIONS

Cultek

Our commitment
To being a trusted partner

Horizon works with you to accelerate your research from discovery through to clinical development, providing you with the ability for larger capacity and guaranteed quality.

Basic Research → Target ID → Target Validation → Lead Discovery → Lead Optimization → Preclinical Research → Clinical Trials

Functional Genomics

Understand and interrogate the biology of novel targets and modulate them

Immunology

Determine the effects of therapeutics on the human immune system

Cell Panels

Assess the biological impact of oncology therapeutic candidates

Cell Line Engineering

Develop robust models for reliable and predictive results

Access
To products and service development specialists with deep scientific knowledge

Innovation
With a consultative approach, creating solutions for you, with you

Collaboration
With our skilled research team to design your study

Dedication
Reducing your time to market

Introduction video | Visit our website | Contact us

Functional Genomics Screening

A full service, from experimental design through to data analysis

Leverage Horizon's CRISPRko/a/i screening capabilities to accelerate your discovery research, available in pooled and arrayed formats.

	DUAL LOSS-OF-FUNCTION SCREENING		DUAL DIRECTION SCREENING
	CRISPRko	RNAi CRISPRi	CRISPRa
	Delete your gene of interest	**Suppress your gene of interest**	**Activate your gene of interest**
	Address research challenges from target discovery to patient stratification	Evaluate drug sensitivity and resistance to patient genotypes	Identify the impact of gene overexpression on drug response

Pooled Screens	Arrayed Screens
CRISPR ko/i/a	CRISPR ko/i/a and RNAi
Single, dual, and combination formats	Synthesize and screen custom oligos
Select from pre-evaluated cells or use your model	Complex assay readouts
Proliferation and fluorescence readouts	Co-culture screens
Genome-wide, gene family, and custom libraries	Genome-wide, gene family, and custom libraries
Scalable depth and fold-coverage to meet your needs	Efficiency of multiple reagents per gene per well

Consultative Workflow Approach

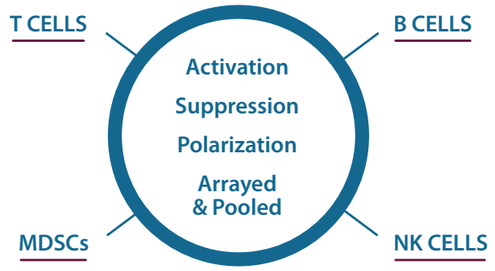
1	2	3	4	5
Project Design	**Assay Development**	**Screen Execution**	**Data Analysis**	**Data Delivery**
Understanding of goals	Cell line onboarding	Dose adjustment	Analysis data from NGS/screen	Full report
Selecting the right cell line, library format, and platform	Evaluate cell growth	Provide key metrics	Detailed materials & methods	Discussion of results
	Pseudoscreen	Report/resolve anomalies	Hits and pathways identified	Follow up strategies

Check out this video | More information here | CRISPR technologies poster

Immunology

Industry leading assays in primary immune cell types

Access the forefront of immunology research and gain the ability to explore the underlying mechanisms behind immune cell activation and suppression.



We use primary immune cells from multiple donors, ensuring the cell morphology and cell markers are maintained *in vitro* allowing you to correlate results in animal models and patient samples.

Evaluate the effect of a specific gene knock out or therapeutic at a functional level with the right high throughput immune assay

Cytotoxicity Assays	T cell Proliferation Assays	Immune Suppression Assays
Evaluate the action of anti-cancer antibodies and other biologics using a number of different immune cells	Evaluate the action of your drug or combination of drugs on T cell proliferation	Evaluate the action of your drug or combination of drugs on the suppression of normal T cell by suppressive immune cells
ADCC / ADCP / CDC T cell mediated tumour cell lysis	MLR T Cell Activation Assay	Treg / MDSC / Breg

Consultative Workflow Approach

1	2	3	4	5
Select your immune cells	**Select immune cell editing**	**Select tumour co-culture**	**Select drug throughput**	**Select assay readouts**
T cells B cells MDM cells Natural killer cells MoDC	**Established editing** T cells B cells **Assay development** MDM cells Natural killer cells MoDC	1200+ tumour cell lines Gene editing available	Single or combination treatments 8 point dose response curve 8x8 combination dose matrix	Proliferation Cytotoxicity Surface expression Cytokine release Apoptosis and more

Immune cell webinar | More information here | Apoptosis app note

OncoSignature™ 2D/3D Cell Panel Screening

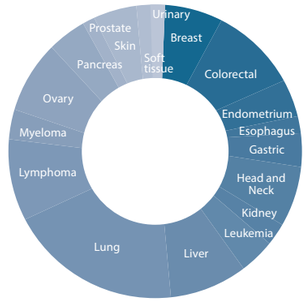
Driving Translational Biology

OncoSignature™, is our cell line rotation platform that gives you access to our cost effective, time sensitive cell panel screening platform.

Cell line collection

2D OncoSignature™ 300 cell lines

18 tissue indications



3D OncoSignature™ 200 cell lines

17 tissue indications

Single drug screening or combination drug screening

Up to 40 single agents

Accommodates diverse therapeutic modalities

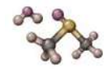
Up to 12 combination drugs

1 treatment point up to 6 days

Large Biologic

Small Biologic

Small Molecules



Diverse Solvents

Viability Assay

Incorporates T_0 controls for GI_{50} calculation to discriminate cytotoxic vs. cytostatic effects

Build a screen that fits your needs

Various assay formats

Synthetic RNAs

Flexible endpoints

Combination screening with up to 350 compounds

Extended 350 oncology-relevant cell line library for 2D

Over 4000 HAP1 Knock out cell lines

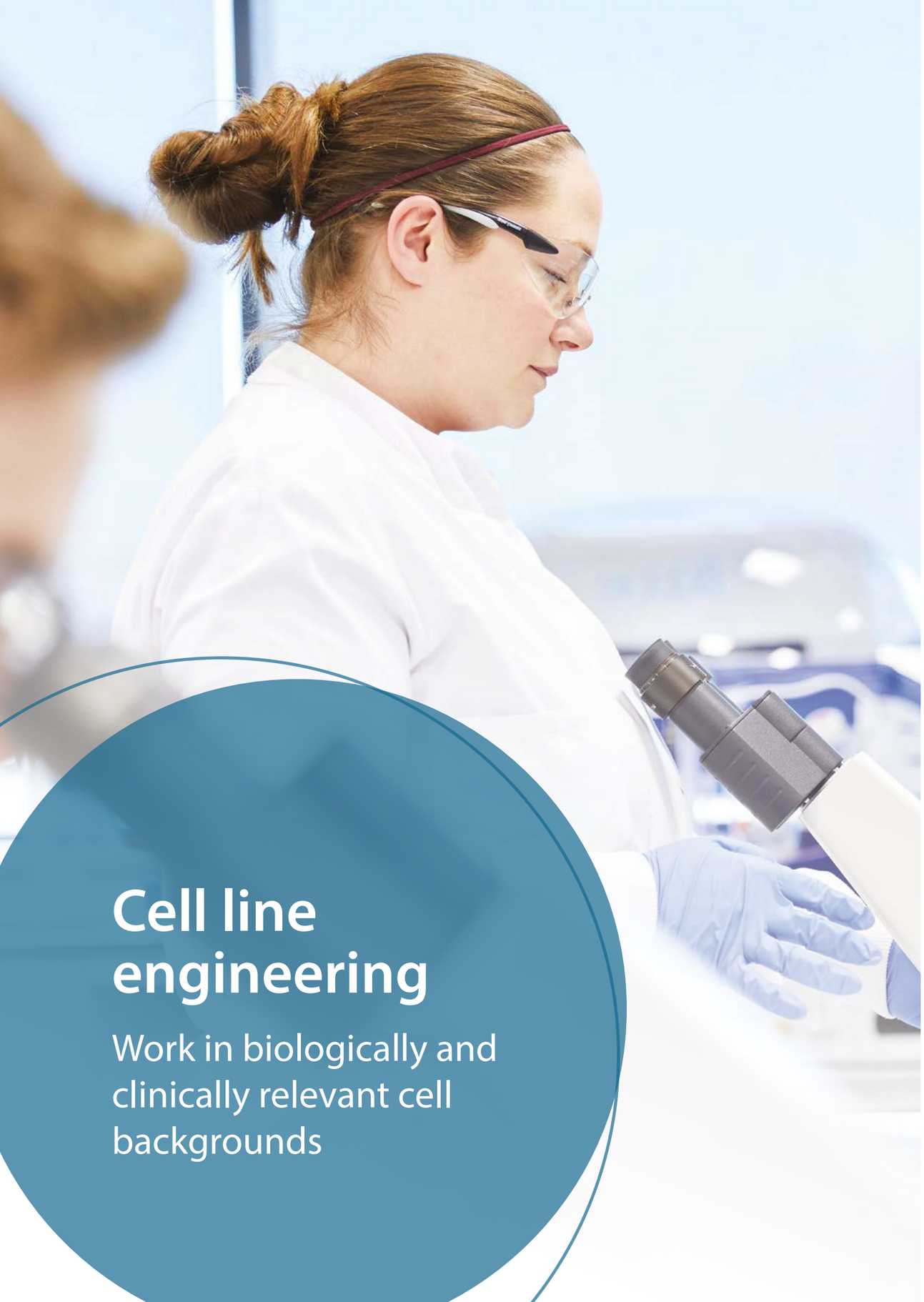
On-board your own cell lines

Client-sourced organoid screens

Consultative Workflow Approach

1. **Contact us**
   - Discuss your needs with our team
   - Scalable pricing model
2. **Project design**
   - Select your cell lines
   - Select your combinations
   - Choose assay formats and endpoints
3. **Screen execution**
   - Monthly data reports
   - Tracked on LIMS
   - STR authenticated cell line bank
4. **Data delivery**
   - Results in 4 months
   - Comprehensive data pack
   - Chalice™ data analysis software provided
5. **Bioinformatics**
   - Options available for additional bioinformatics

Webinar 2D & 3D | More information here | Compound screening app note



Cell line engineering

Work in biologically and clinically relevant cell backgrounds

Affordable cell line engineering allows you to focus on the most critical aspects of your research project - delivering accurate data and publishing reliable results.

From standard knockouts to challenging cell lines such as iPSCs and primary cells, Horizon can support you.

Build your own cell line

Knockouts delivered in as little as 12 weeks		
Service	**Price from**	**Benefits**
Standard Knockouts	£7,500 $9,950 €8,750	Invoice on delivery
Double Knockouts	£15,000 $19,900 €17,500	Single knockout clones included
Cas9 expressing stable lines	£3,750 $4,950 €4,250	Pooled or clonal format
Knock-ins delivered in as little as 14 weeks		
Single nucleotide polymorphisms (SNP) knock-ins	£9,950 $13,500 €11,650	• Invoice on delivery • Customer defined zygosity requirements - at additional cost
Tag knock-ins	£11,650 $15,500 €13,500	• His, FLAG, or Myc • Defined, N-terminal or C-terminal insert location
Reporter knock-ins	£12,800 $16,950 €14,950	• RFP, GFP, EGFP, EBFP, EYFP, ECFP or customer defined fluorophore • HiBit, LgBit, NanoLUC insertions • Defined, N-terminal or C-terminal insert location
Unique projects - delivered in as little as 12 weeks		
iPSC editing	£12,800 $16,950 €14,950	• Rely on our vast knowledge and expertise • Zero fees for onboarding customer provided cell line
Can't see your required options? For any complex edits not defined above - contact us for price and timeline. We can perform just about any edit in any cell line.		

Standard deliverables

- Up to 2 clones with sequence verification
- Parental cell lines
- Full IP coverage for R&D under Horizon's CRISPR licenses
- Sterility testing
- Mycoplasma testing
- Summary project report
- Functional verification for Cas9 stable and reporter cell line projects

Add-ons

- Delivery of additional clones
- Larger screen sizes
- Delivery of the edited pool for standard knockout projects

Learn more: iPSCs and genome editing | Build your own cell line | Blog: Pools v Clonal

Our promise
To deliver excellence

Consultation

Our world-class team of scientists ready to consult and advise on your most complex screening projects

Progress Updates

Project managers to provide frequent updates, along with project scientists to recommend next steps and paths forward

Delivery

Data delivery shared in formats amenable to your studies

Discussions

In-depth data discussions with our teams

Follow up on your hits

Leverage library-matched catalog gene-specific reagents for easy hit confirmation

Screening libraries | **Gene modulation reagents** | **Gene editing reagents**

Contact us

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