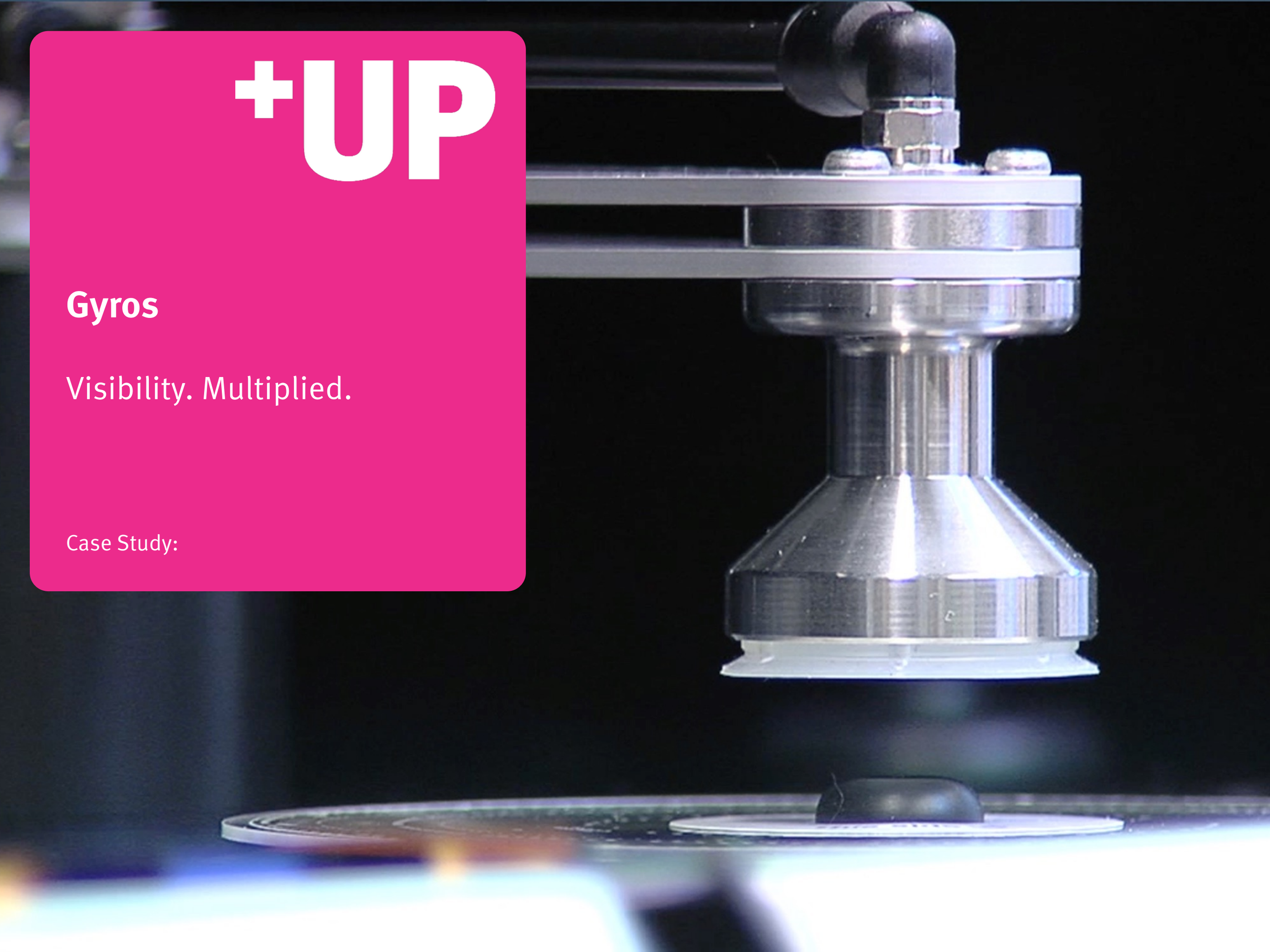
+UP

Gyros

Visibility. Multiplied.

Case Study:



GYROS

VISIBILITY. MULTIPLIED.

Gyros supplies a potentially game-changing technology used for the characterization and development of biological drugs. The applications range from early biopharmaceutical development through preclinical and clinical trials to production. Its revolutionary Gyrolab platform was produced after years of work by teams of dedicated scientists and technicians.

VISIBILITY. MULTIPLIED.

The Brief

Market research showed that the company was relatively unknown, and in the transition phase between their technology being used by the early adopter and the early majority. The management asked us, with our global expertise in the life science tools industry, to help the company become more visible and to communicate its true value to the customer.

Process

It was important to identify the early majority, the key customer group, as they had the potential to influence additional customer groups. User interviews revealed a strong Value Proposition: when the pressure is on, people turn to their Gyros system. This is because the speed enhancement enables customers to carry out same-day decision-making and accelerate the progress of clinical studies.
We found clear advantages over traditional analytical methods that could be presented as a sub-theme to satisfy the need for a technological reference point.

VISIBILITY. MULTIPLIED.

Work

A new website was created, based on benefits and applications. It included two key creative ideas: ‘Productivity. Multiplied.’ and ‘Biopharma R&D Revolutionized’. Our online experts supported the website with Search Engine Optimization and a new Inbound Marketing process, including directed emailing, contact qualification and segmentation. We also conceived and wrote the content for a blog.

The Result

The new site communicated the Value Propositions and Unique Selling Points clearly, in contrast to the old techno-centric site. Our SEO raised Gyros’ keywords to #1 position, improving organic searches and, combined with inbound marketing activities, boosted visits from 2,000 to 10,000 per month.

More

See the Gyros website: http://www.gyros.com

Rexxip buffers

Product Information Sheet

D0021887/A

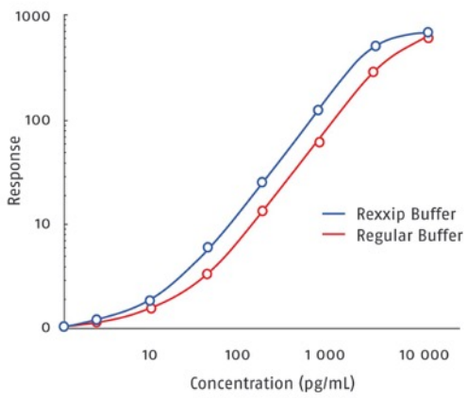
- Save time in assay development
- Maximize immunoassay performance
- Compatible with a variety of molecules with different analytical properties

Rexxip buffers – improved assay performance

Rexxip buffers are designed to ensure that every sample enters and flows optimally through the microfluidic channels of a Gyrolab CD. Using the optimal buffer can enhance binding between analyte and reagent and minimize the risk of non-specific binding.

An example is shown below of how the performance of an assay can be improved by changing to Rexxip buffer. The precision (CV) is greatly improved whilst maintaining linearity.

		Rexxip Buffer		Regular buffer	
Sample	**Conc. (pg/mL)**	**Mean Response (n=3)**	**CV Response**	**Mean Response**	**CV Response %**
Blank	0	0.87	1.8	1.07	8.15
Standard 1	2.56	1.08	7.7	1.21	10.2
Standard 2	12.8	1.87	4.6	1.63	16.3
Standard 3	64	5.83	1.6	3.44	26.6
Standard 4	320	25.2	1.3	13.6	16.2
Standard 5	1600	122	1.7	62.1	30.7
Standard 6	8000	514	7.2	288	18.6
Standard 7	40000	687	5.7	616	6.7



GYROS

Rexxip buffers – improved assay performance

Rexxip buffer selection

Using the optimal Rexxip buffer for each assay will boost assay performance. To ensure uniform buffer conditions, samples, standards and quality controls should all be diluted into the same preferred Rexxip buffer.

The Rexxip buffer range has been developed to take into account the many different parameters that may influence assay performance, such as application objective, type of analyte, biological origin, and components of the sample and assay format.

Storage of Rexxip buffers

Refrigerate at +4°C to +8°C. Do not freeze.

Shelf life (unopened package): see product label.

Shelf life (opened package): <3 months if contamination is avoided by use of adequate pipetting routines. Contamination will reduce shelf life.

	A / A-max	AN / AN-max	H / H-max	HN / HN-max	HX / HX-max	F	CCS	ADA
Buffer of choice (if none of below)	•							
Positively charged analyte, ≈ IEP 8 or higher		•		•				
Hydrophobic analyte					•	•		
Heterophilic antibodies present in sample, e.g. human or cyno samples			•	•	•			
Negatively charged small analyte, e.g. GLP-1					•			
To dilute detection agent						•		
Option for cell culture sample with high protein content, e.g. bioprocess samples							•	
Anti-Drug Antibody (ADA), low pH								•

A, Animal samples; H, Human samples.
Rexxip-max buffers are designed for sample dilutions 1:2.
Regular Rexxip buffers should be used for sample dilutions > 1:2.

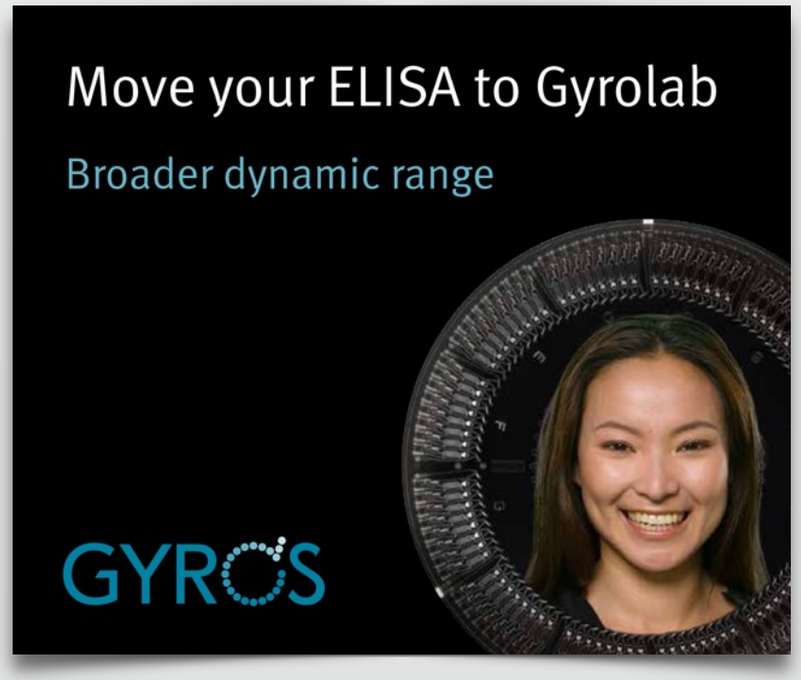
Ordering information

Product number	Product name	Volume (mL)
P0004820	Rexxip A	25
P0004821	Rexxip A-max	25
P0004822	Rexxip H	25
P0004823	Rexxip H-max	25
P0004995	Rexxip AN	25
P0004995	Rexxp AN-max	25
P0020033	Rexxip HX	25
P0020034	Rexxip HX-max	25
P0004996	Rexxip HN	25
P0004997	Rexxip HN-max	25
P0004824	Rexxip CCS	25
P0004825	Rexxip F	10
P0020027	Rexxip ADA	25

D0021887/A

www.gyros.com

GYROS



Gyrolab ADA solution

Product Information Sheet

D0016915/A

- **Reduces hands-on time**
  - Fewer manual steps – automated sample pretreatment and immunoassay workflow at nanoliter scale
- **Shortens overall run times**
  - Results within one hour
- **Saves precious reagents and samples**
  - Immunoassays at nanoliter scale
- **Streamlines workflow from assay development through screening to confirmation**
  - Gyrolab ADA protocol and dedicated Gyrolab ADA Software
  - Rexxip ADA buffer to facilitate assay development

Figure 1. Gyrolab ADA Software, Gyrolab ADA CD and Rexxip ADA buffer.

Time-efficient, drug-tolerant ADA analysis run automatically in Gyrolab workstation

The Gyrolab ADA solution integrates proven sample pretreatment procedures into a nanoliter-scale, immunoassay workflow within a Gyrolab ADA CD. Dedicated, 21 CFR Part 11 compliant Gyrolab ADA Software supports this fully automated procedure from assay development and validation to screening and confirmatory analysis.

Working at nanoliter scale reduces overall processing times and minimizes sample/reagent consumption. Precise control over mixing and incubation times ensures reproducibility. Fast reactions at nanoliter scale eliminate lengthy incubation steps found in conventional assay formats. High drug tolerance coupled with high sensitivity and consistent performance produce high quality data.

High sensitivity

Table 1 shows the high sensitivity of a Gyrolab ADA analysis. An LOD of 31 ng/mL ADA, in the absence of free drug, was achieved in a model system.

Expected Conc. (ng/mL)	Run 1 Av. Response	Run 2 Av. Response	Run 3 Av. Response	
0	0.023	0.025	0.049	
15.62	0.056	0.043	0.068	Cut point
31.25	0.081	0.090	0.098	
62.5	0.139	0.131	0.154	
125	0.260	0.252	0.283	
250	0.479	0.469	0.477	
500	0.943	0.981	1.092	
1000	1.858	1.714	2.296	

Table 1. Drug model: recombinant hIgG1 to HIV-1 gp120. Serial dilution of gp120 in pooled human serum.

Drug tolerance exceeds current recommendations

Using a model system, a sensitivity of 160 ng/mL ADA in presence of 160 µg/mL of free drug was achieved (Figure 1). This exceeds the current recommendations for assay sensitivity* in preclinical studies (500–1000 ng/mL) and clinical studies (250–500 ng/mL). Recovery values (%) indicated no signal loss due to drug interference, minimizing risk of false negatives.

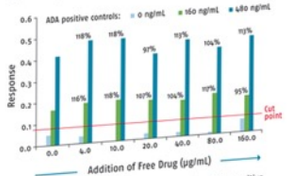
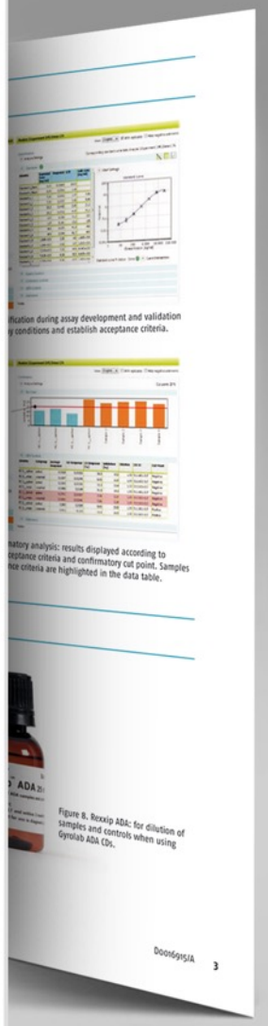


Figure 2. Drug model: recombinant hIgG1 to HIV-1 gp120, positive control: mIgG to HIV-1 gp120 antibody. %recovery = (+drug/–drug) ×100 for each positive control level.

*Recommendations for the design and optimization of immunoassays used in the detection of host antibodies against biotechnology products
A. R. Mire-Sluis et al., Journal of Immunological Methods 289 (2004) 1 – 16

GYROS

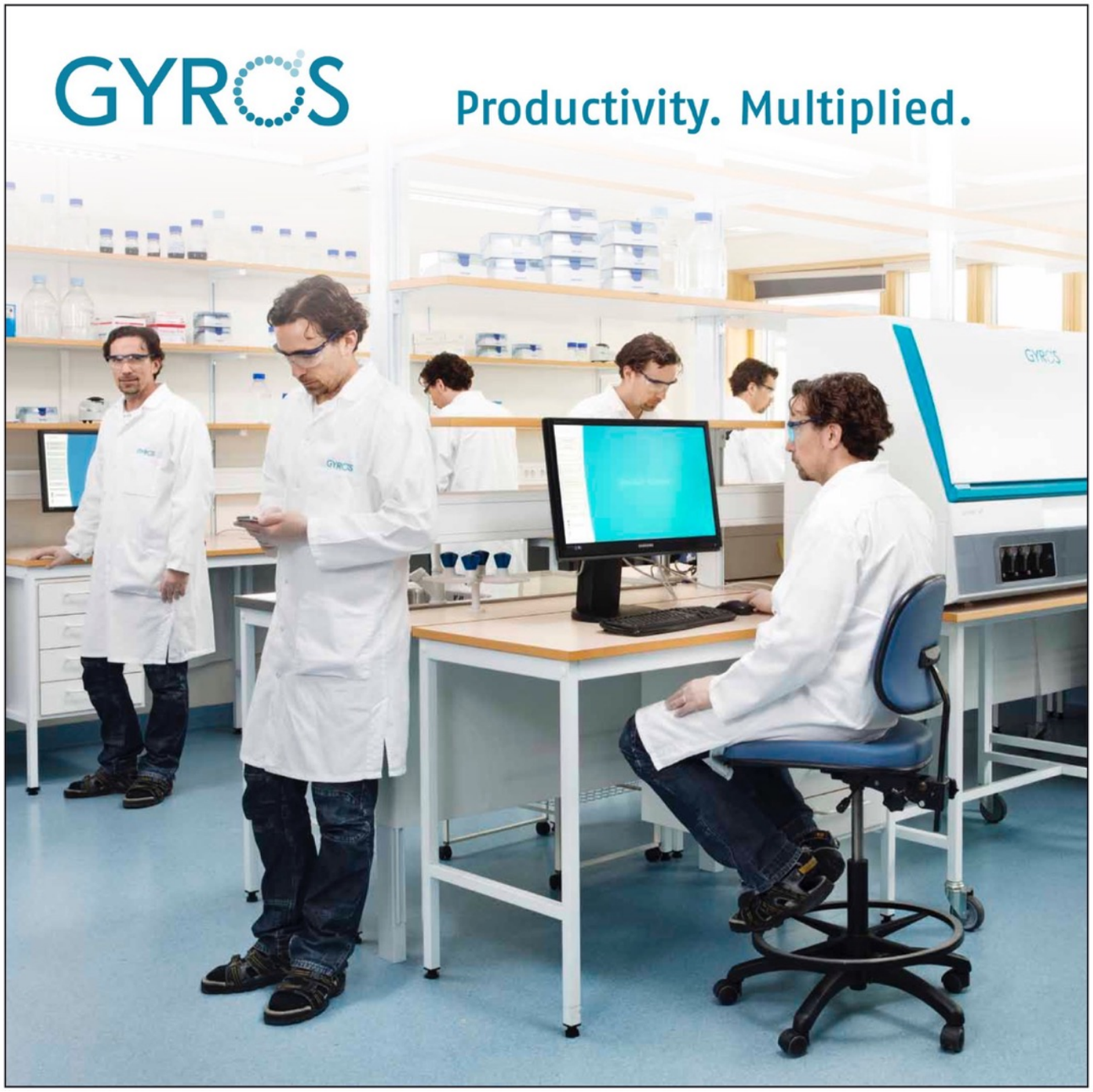


GYROS

Revolutionizing biopharma R&D

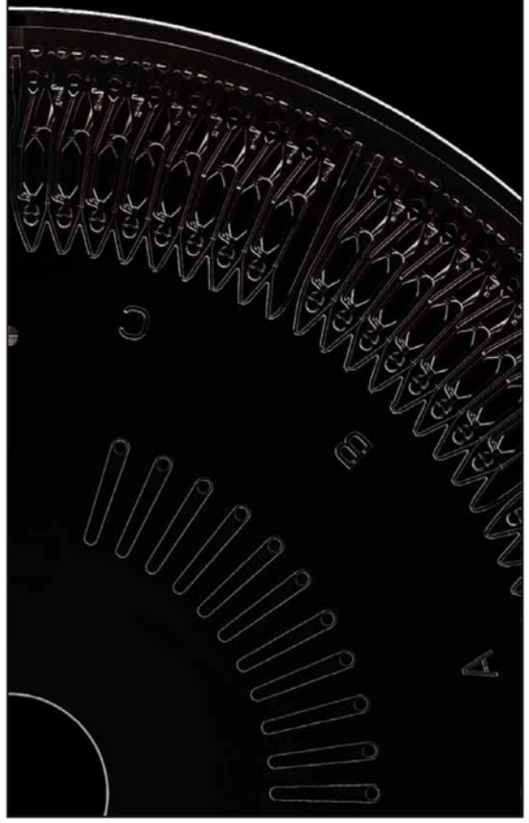
GYROS

Productivity. Multiplied.



GYROS

Improving immunoassay performance



GYROS

Revolutionizing biopharma R&D

GYROS

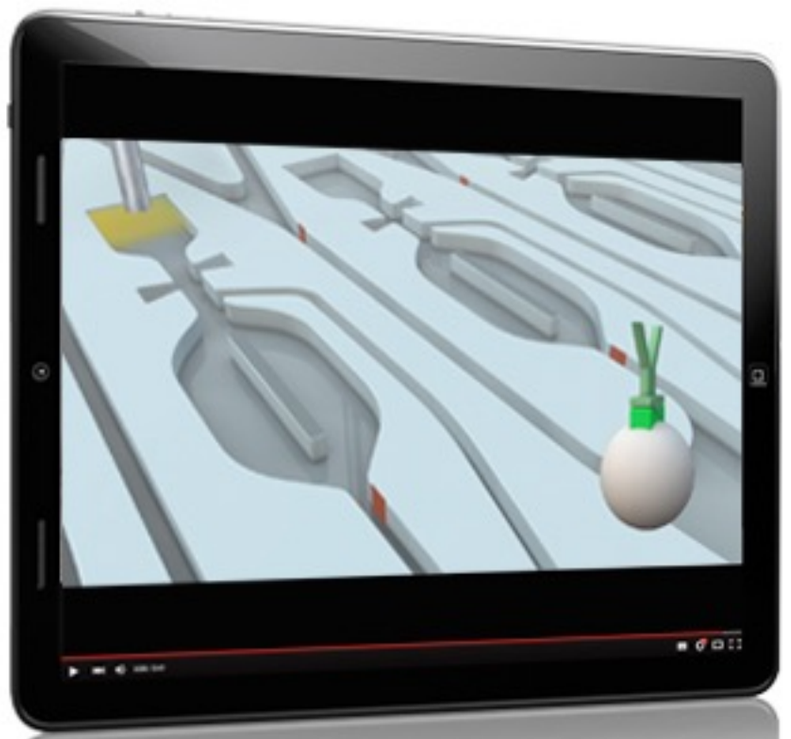
Productivity. Multiplied.

GYROS

GYROS

Improving immunoassay performance


GYROS
Accelerating therapeutic
protein development



+UP there, everywhere®

The Global Cloud Based Agency