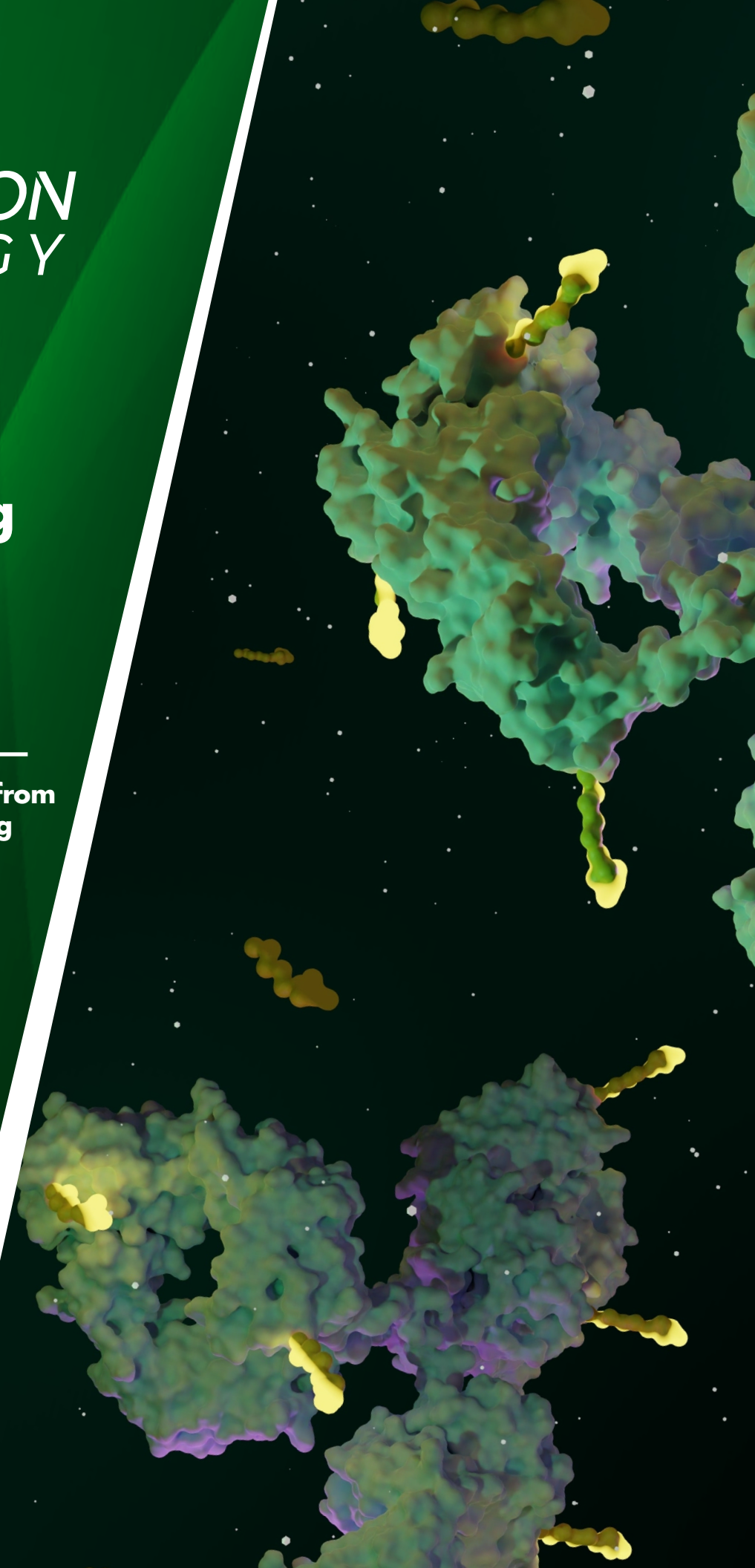
REACTION BIOLOGY

Antibody-Drug Conjugate Discovery Platform

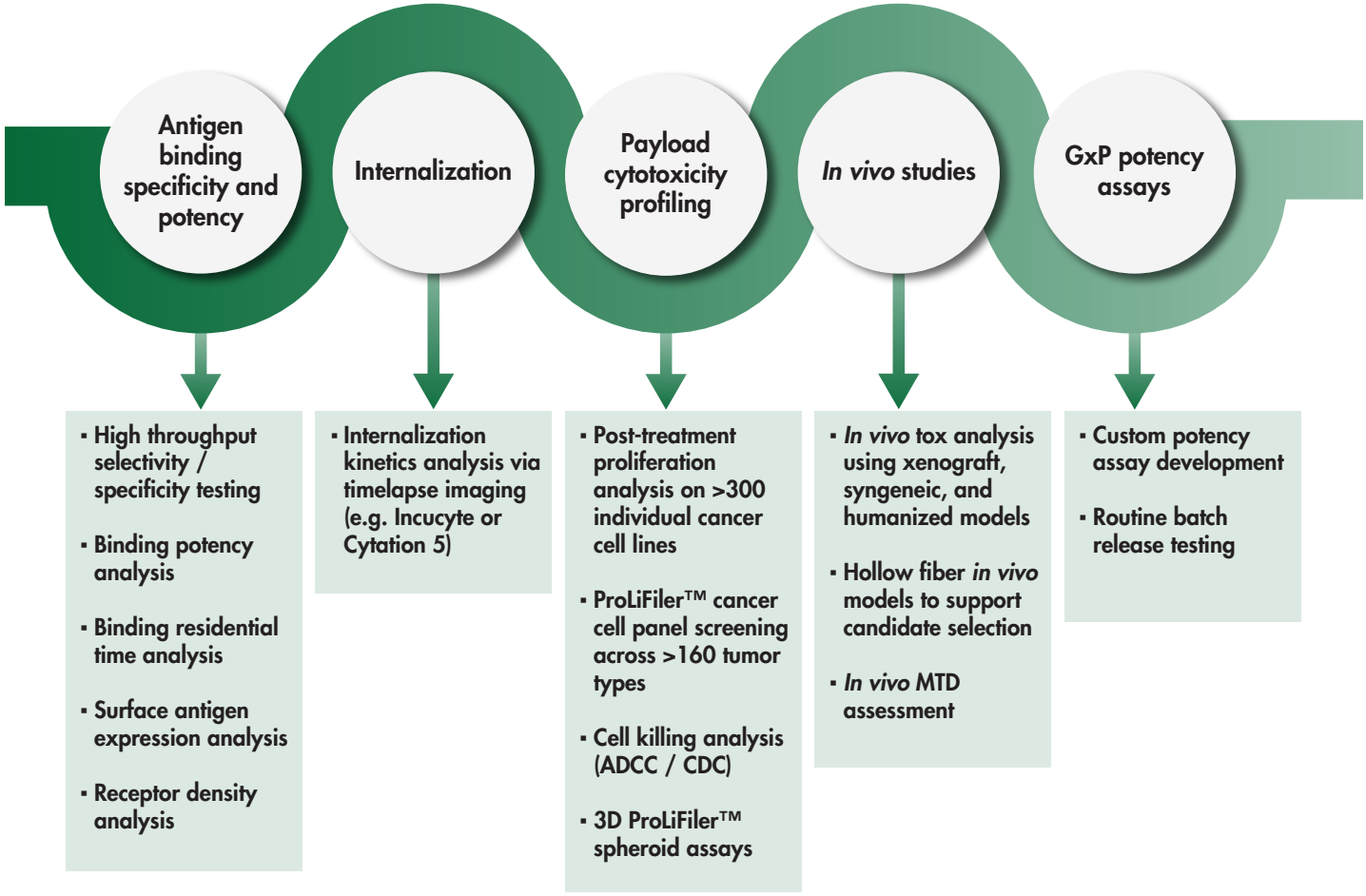
End-to-end service offering from biochemical to *in vivo* testing



The recent approvals of Tisotumab vedotin-tftv (Tivdak®) for cervical cancer and ado-trastuzumab emtansine (Kadcyla®) for breast cancer signify a notable leap forward in the realm of antibody-drug conjugates (ADCs), showcasing their promise in cancer treatment. However, despite these achievements, the longstanding concept of the "magic bullet," proposed over a century ago, encounters several technical challenges such as unusual on-target off-site toxicity, low payload potency, unstable linker design, and drug resistance. Therefore, the development of ADCs necessitates a tailored approach aimed at addressing safety concerns associated with each constituent: the antibody, the small molecule drug (payload), and the linker.

Reaction Biology offers a comprehensive portfolio of services uniquely positioned to support the advancement of future therapies, ranging from early-stage biochemical and 2D or 3D cell-based assays to *in vivo* models.

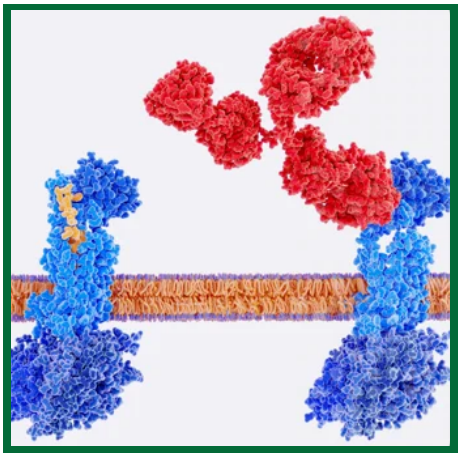
We support every step of your ADC discovery program



Comprehensive support from molecule to model

1. Antigen Binding Specificity and Potency

ADC molecules must demonstrate the same or similar antigen binding specificity and potency as the unconjugated antibody. We offer advanced solutions to meticulously evaluate and optimize antigen binding properties, ensuring maximum therapeutic benefit.



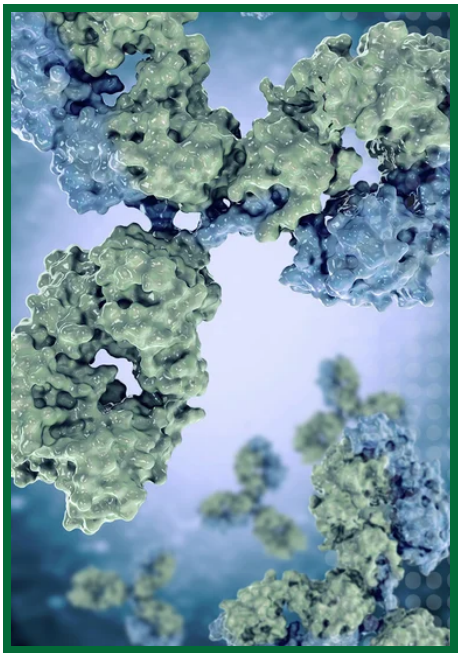
- Perform high throughput selectivity / specificity testing using our protein microarrays
- Determine binding potency using SPR, flow cytometry, and ELISA
- Evaluate binding residential time (with on/off rate) for your antibody alone and after conjugation, using our state-of-the-art SPR capabilities
- Characterize surface antigen expression (surfaceome) across 160 cancer cell lines with our OncoFlow-Profiler panel
- Analyze receptor density by flow, using QIFIKIT

2. Internalization

Efficient internalization is crucial for the successful delivery of the payload to the target cells. We help assess the internalization kinetics of your ADC using flow cytometry or imaging, thus optimizing your compound for therapeutic efficacy.

3. Payload Cytotoxicity Profiling

Once internalized, the payload must exhibit the same or similar toxicological profile as the free payload without conjugation, ensuring safety and efficacy. Our solutions allow you to rigorously evaluate the cytotoxicity of your ADC payload, minimizing potential risks to your program.



- Assess cancer cell proliferation after ADC and payload treatment using our large catalog of over 300 individual cancer cell lines
- Leverage our ProLiFiler™ cancer cell panel screening service to evaluate your ADC and payload potency across more than 160 tumor types
- Identify your ADC method of cell killing with our antibody dependent cellular cytotoxicity (ADCC) and complement dependent cytotoxicity (CDC) assays
- Compare the activity of your ADC in 3D vs. 2D settings with our 3D ProLiFiler featuring 40 cancer spheroid lines.
- Test for your ADC's ability to induce DNA breaks

4. *In Vivo* Studies

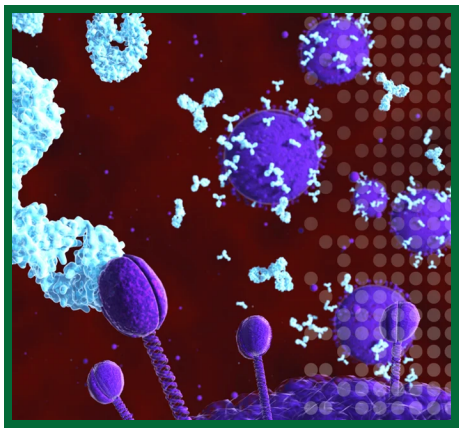
In vivo studies provide critical insights into the pharmacokinetics, biodistribution, and efficacy of ADCs in living organisms. We offer broad capabilities to translate your early findings to physiologically relevant data with our advanced *in vivo* models.

- Evaluate efficacy *in vivo* using our xenograft, syngeneic and humanized models. PK / PD readouts available as well.
- Rapidly select your best ADC candidate and target tumor indication using our Hollow Fiber *in vivo* models engrafted with three different tumor cell lines simultaneously
- Assess tolerability *in vivo* - both acute and chronic

5. GxP Potency Assays

Accurate and reliable potency assays are essential for assessing the biological activity of ADCs in a GxP-compliant manner. Our GxP potency assays are designed to meet regulatory standards, providing robust data to support your ADC development program.

- Leverage our potency assay development expertise
- Perform routine batch release testing with the highest quality standards



Why choose Reaction Biology?

Expertise
Experienced scientists with a proven track record in ADC development

Comprehensive
Choose from a diverse solution portfolio including biochemical, cell-based, and *in vivo* assays

Customized
Get tailored services to fit your research needs

GLP-compliant
Safeguard the development process with GLP compliance and stringent regulatory standards

Get started today

Accelerate your path to ADC success with Reaction Biology

REACTION BIOLOGY

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