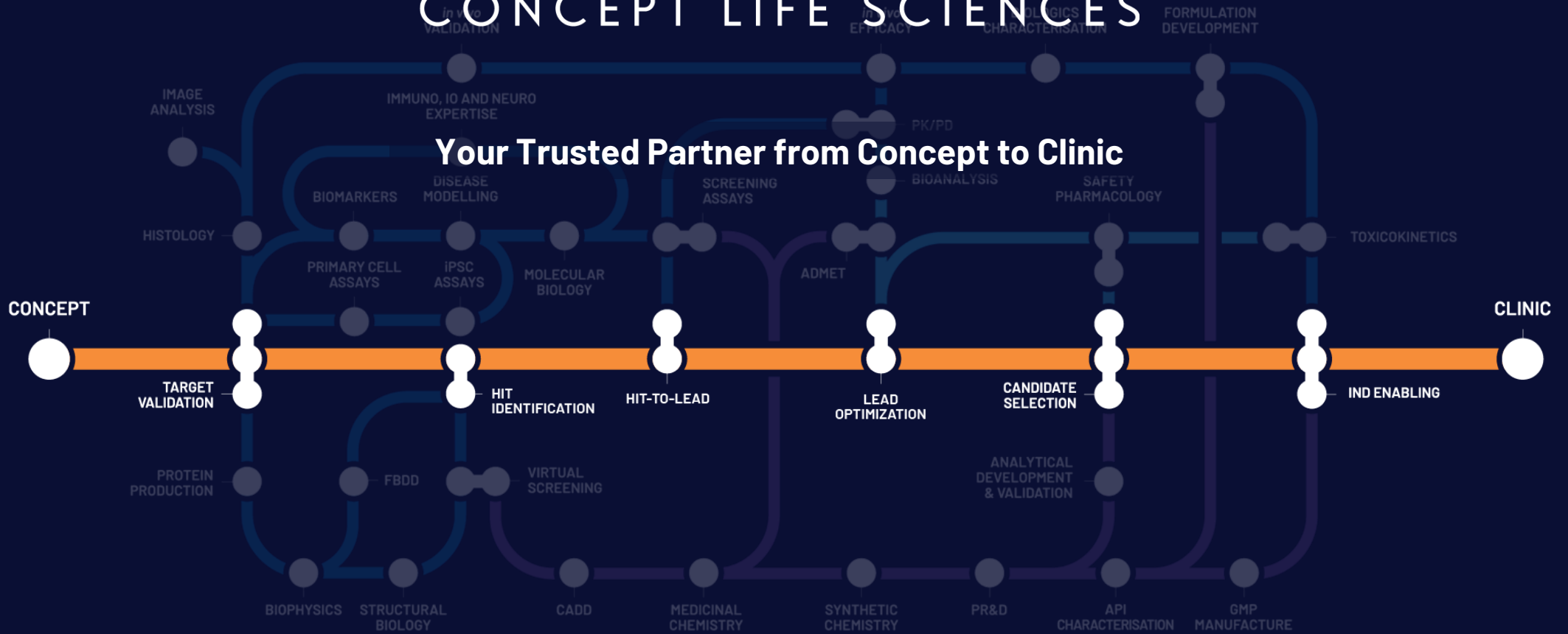




# CONCEPT LIFE SCIENCES

Your Trusted Partner from Concept to Clinic



## From Hit to Clinic in Half the Time: Integrated Solutions that Enhance Efficiency and Reduce Costs

- **Accelerated discovery:** Hit to candidate in 18 months, vs 36-month industry standard
- **Built-in performance:** Industry-leading timelines driven by 10-day DMTA cycling, under-one-roof solutions, and innovative technologies
- **Efficiency by design:** Custom-fit projects ensure we get it right first time – no unnecessary experiments, no rework, no wasted time
- **Proven track record:** 29 clinical candidates and 5 marketed drugs across therapeutics areas

### Why trust Concept Life Sciences with your project?



Tailored partnership led by your goals, timelines and internal processes



Insight beyond the data, with advanced analytics and deep therapeutic expertise for smarter decision making



Advanced capabilities under one roof, enabling faster, more coordinated discovery and development

# Concept's History of Excellence





# Leading Capabilities Driving Efficiency to Clinic

# A Stronger Foundation for Downstream Success

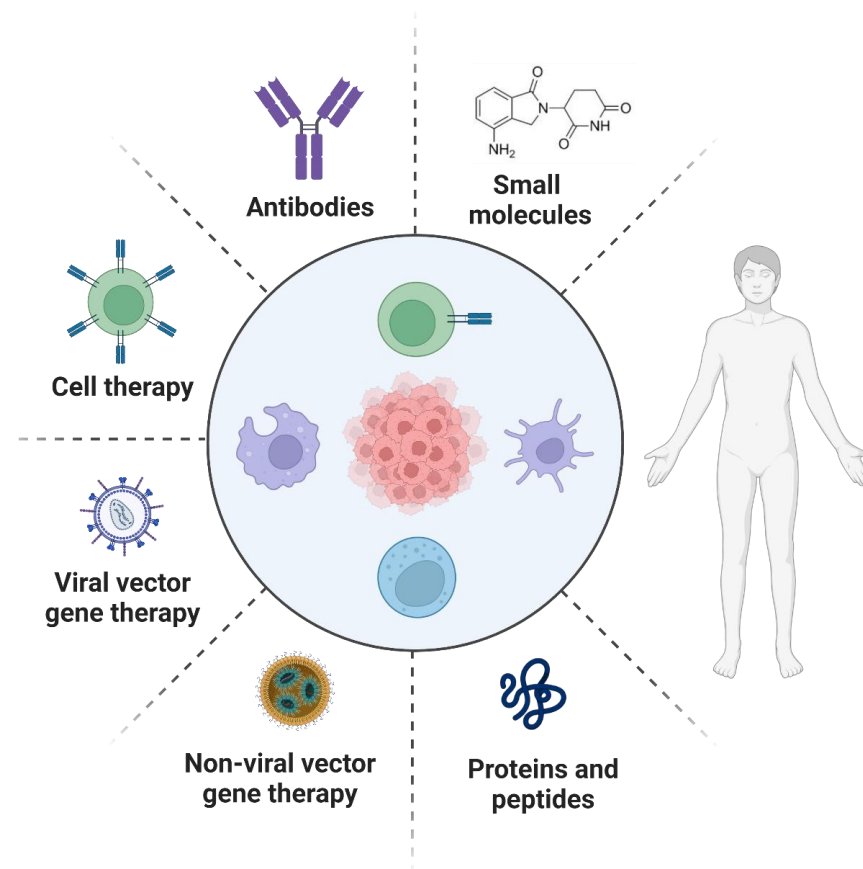
Decades of target validation expertise in disease relevant models to accelerate your journey to clinic

**Validate Disease Relevance:** Human disease models link targets to pathology, creating a strong base for validation.

**Prove Modulation and Specificity:** Expertise and advanced tools deliver proof-of-concept data and profile activity across cell types to ensure precise, selective interventions.

**Unlock Biomarkers and De-risk Early:** Identify and track biomarkers and run safety profiling to flag off-target effects and toxicity before they become costly.

**Bridge to the Clinic:** Advanced translational models turn preclinical insights into clinically predictive data.



# Target to Optimized Lead, Faster

Advanced cell models and human-relevant data predicts success early

## Predictive cell-based models that reduce translational risk

**Primary human and rodent cell-based assays:** Tailored to match your disease area.

**Therapy area Expertise:** Extensive experience working with diverse cell types across oncology, immunology, fibrosis and neuroscience.

**Physiologically relevant models:** We recreate complex *in vivo*-like environments that mirror patient biology.

## Comprehensive, high-dimensional readouts

**Transcriptomics:** Bulk, single-cell, and spatial RNA-seq to reveal novel mechanisms and targets.

**High content imaging:** Quantitative, multiparameter imaging for phenotypic screens and MoA studies.

**Multiplex assays:** Cytokine profiling, flow cytometry, and additional readouts to complement gene expression.

## Actionable insight with AI/ML drives better decision making

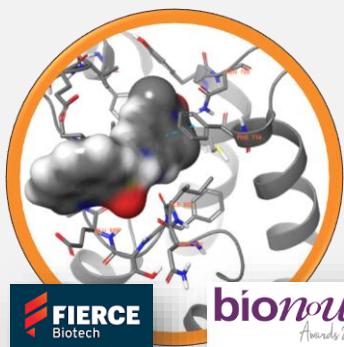
**AI/ML-driven analytics:** Go beyond descriptive data - we deliver predictive, actionable insights.

**Bespoke Bioinformatics Pipelines:** Tailored to your program's nuances for maximum clarity.

**Predictive Modeling:** Forecast compound efficacy and toxicity, optimize leads, and stratify patients.

# Better Hits, More Efficient Discovery

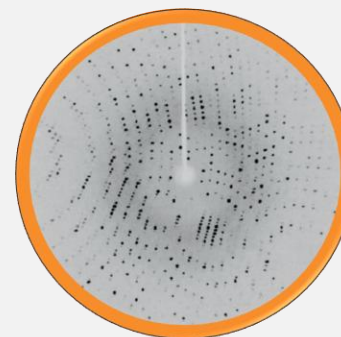
Access a suite of innovative tools for rapid, affordable generation of high-quality hits, tailored to your needs



## BioPALS virtual screen

Rapid, affordable, data rich and industry leading technology

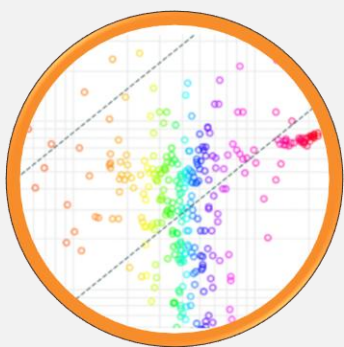
- Cost-effective
- Top-quality hits in 6-8 weeks
- Billion-compound libraries screened
- Affinities, kinetics and topologies
- Highly versatile



## Fragment screen

Lean and structurally enabled hits

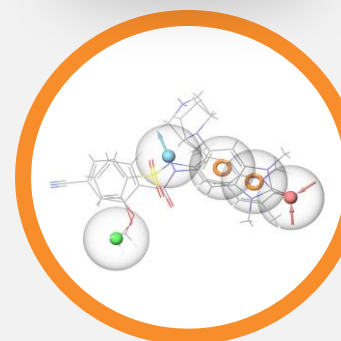
- 1,133 cherry-picked fragments
- High solubility
- Unrivalled biophysics suite
- X-ray and CryoEM
- CADD-enabled optimization



## Focused screen

Higher hit rates, delivering hits adapted to your project

- 10-50k molecules screened
- Biochemical, biophysical & cellular assays
- Chemoinformatics
- Rapid near neighbor follow up
- HTS available via strategic partnership



## Knowledge-based

Accelerate your journey to the clinic with advanced hits

- Scaffold hop and selectivity switch
- Homology modelling
- Pharmacophore-based models
- Advanced data mining
- Chemo-informatics and bioinformatics

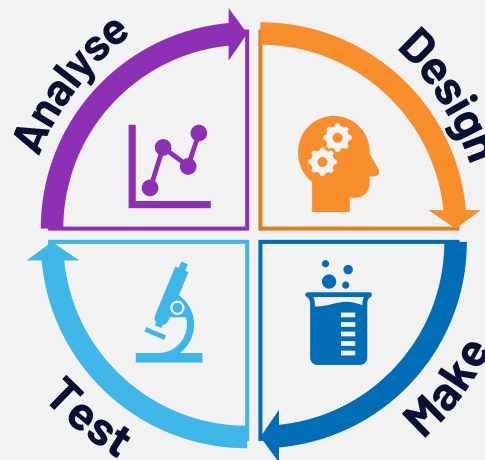
# Find Your Fastest Route from Hit to Lead

Our senior chemists don't just make molecules; they design the quickest, most cost-effective path to lead, tailored to your project

Each drug discovery campaign is unique:  
Our drug hunters guide your project from hit to the clinic, finding the most efficient route for your specific challenges

## A proven-track record in medicinal chemistry design and leadership:

- **Understand** and work with your time and budget constraints
- **Establish** a drug discovery strategy and a critical path
- **Design** a purposeful screening cascade
- **Formulate and test** SAR hypotheses using appropriate designs
- **Work hand in hand** with biology and DMPK scientists
- **Monitor** both competitive landscape and progress against TPP
- **Generate** IP through innovative science



## Modeling – Bioinformatics – Screening



## Cheminformatics – ML – AI

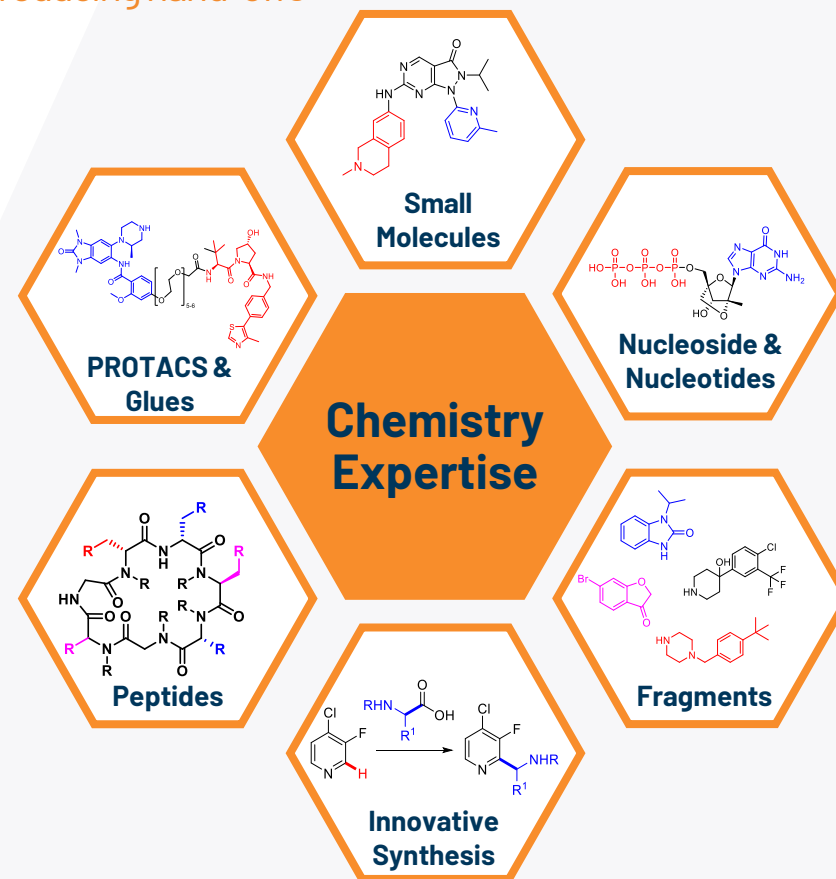


# End-to-End Chemistry: Speed and Continuity Built In

From 10-day DMTA cycling through to manufacture – compressing timelines and reducing hand-offs

Industry-leading problem solving with a 30-year track record across small molecules and beyond rule of five modalities

- Seamless transition from µg HTE to multi-kg, first-in-human GMP batch
- Cutting-edge instrumentation for efficient exploration of new IP
- Direct-to-Biology for expeditive SAR scouting
- Infrastructure and knowhow to support High Potency (OEB5) synthesis
- Specialist analytical support delivering high quality material



# Fit-for-Purpose Assay Development and Screening

Flexible, high-quality assays and integrated expertise

## First Tier: Biochemical Assays

Primary screen  
Potency, counter screen, selectivity,  
species cross-reactivity



## Second Tier: Simple Cell Assays

Secondary screen  
Potency, cell activity, cytotoxicity, target  
engagement



## Third Tier: Phenotypic Cell Assays

Functional, disease relevant  
Complex e.g. primary cell/iPSC



**Deep expertise across diverse target classes**, including GPCRs, kinases, ion channels, nuclear receptors, transporters, and enzymes



**Extensive experience with both cell-based and biochemical assay formats**, including phenotypic, functional, and binding assays



**In-house protein production** enabling faster, more flexible assay development with high-quality, fit-for-purpose targets tailored to screening needs



**Seamless integration** with co-located biology, chemistry, and DMPK teams, enabling rapid data-driven decision-making and iterative design



**Broad suite of cutting-edge instrumentation** ensures the right technology is applied to each project, enabling high-quality data and faster problem-solving across assay formats and study types

# Unparalleled Biophysical Characterization for Exceptional Lead Quality

## High-throughput interaction analyses

In-house **SPR**, **GCI**, **DSF** and **ITC** to measure thousands of interactions per day

Provide a comprehensive understanding of binding mechanism, providing affinity ( $K_D$ ), on-rate ( $k_a$ ), off-rate ( $k_d$ ), enthalpy ( $\Delta H$ ), entropy ( $\Delta S$ ) and stoichiometry ( $n$ )

**Label-free techniques**, requiring no manipulation of protein target (e.g. no fluorescent tags)

## Extensive target characterization

An **unparalleled** suite of techniques to cover every aspect of target characterisation

- DLS
- NTA
- SEC-MALS
- ELS
- SPR
- GCI
- ITC
- DSF
- DSC

Stoichiometry

Affinity & kinetics

Thermodynamics

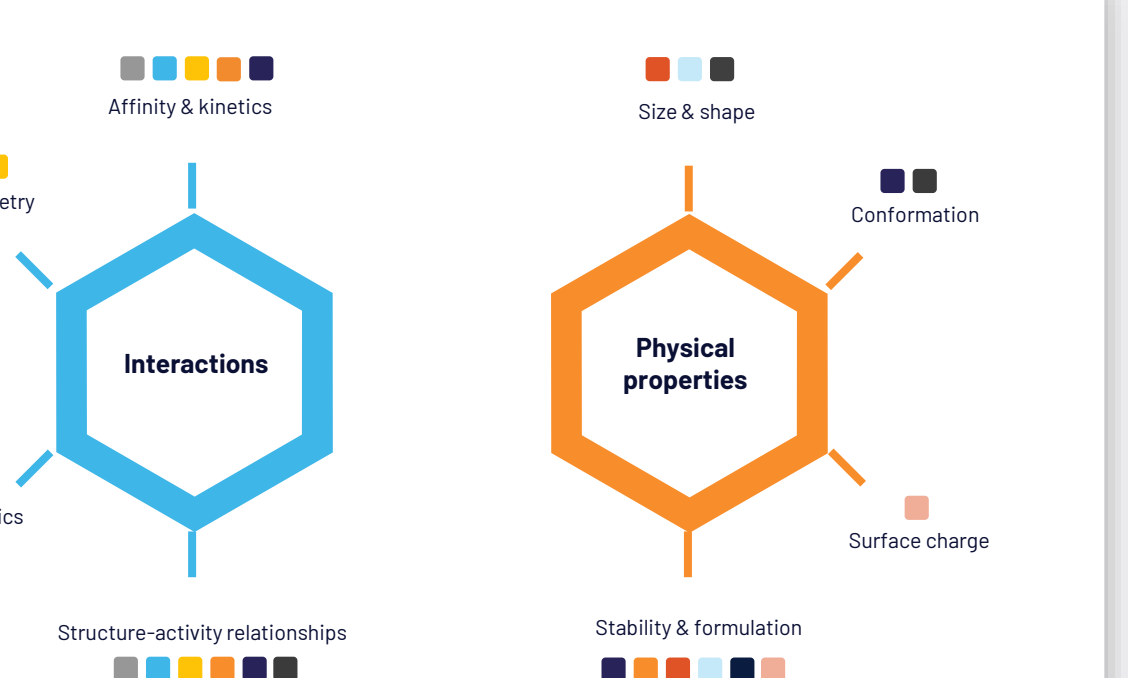
Structure-activity relationships

Size & shape

Conformation

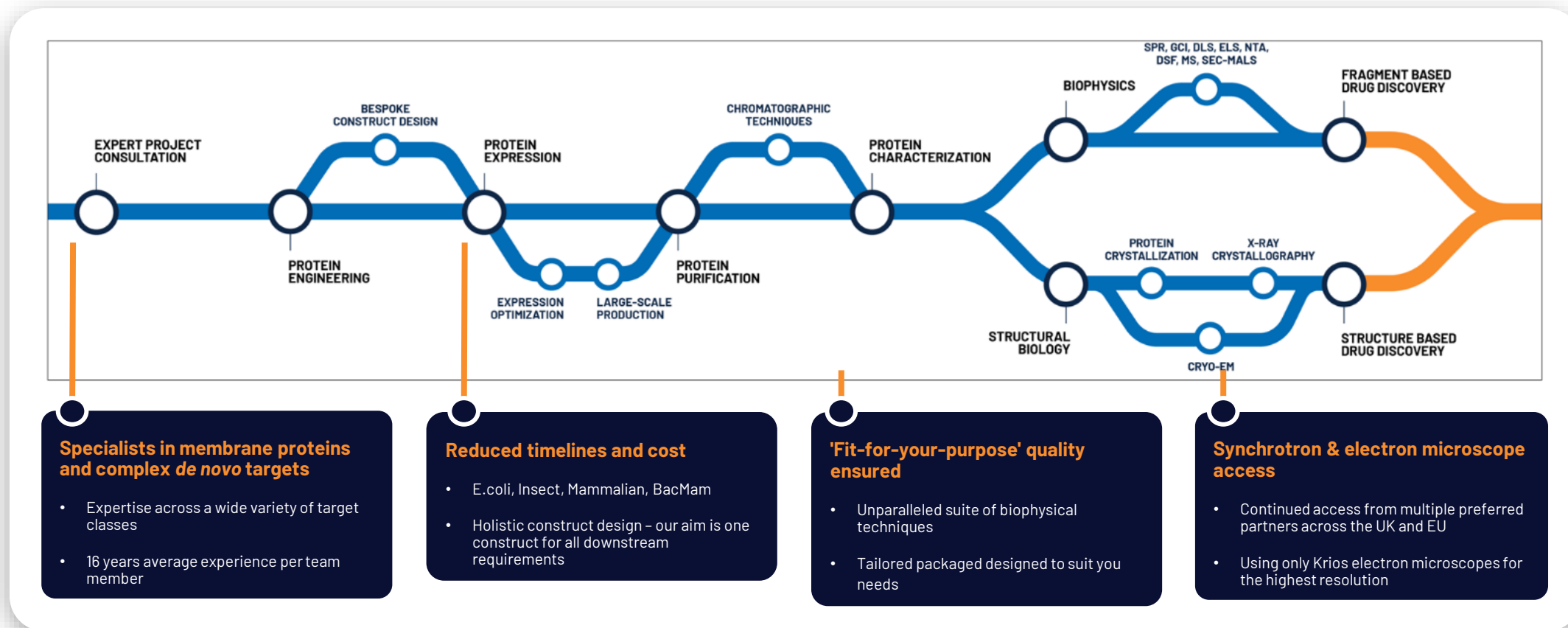
Surface charge

Stability & formulation



# Custom Fit Protein Science and Structural Biology

Integrated protein science team provide atomic-level insight and drive better decisions



# Fast-Turnaround ADMET, DMPK and Bioanalysis

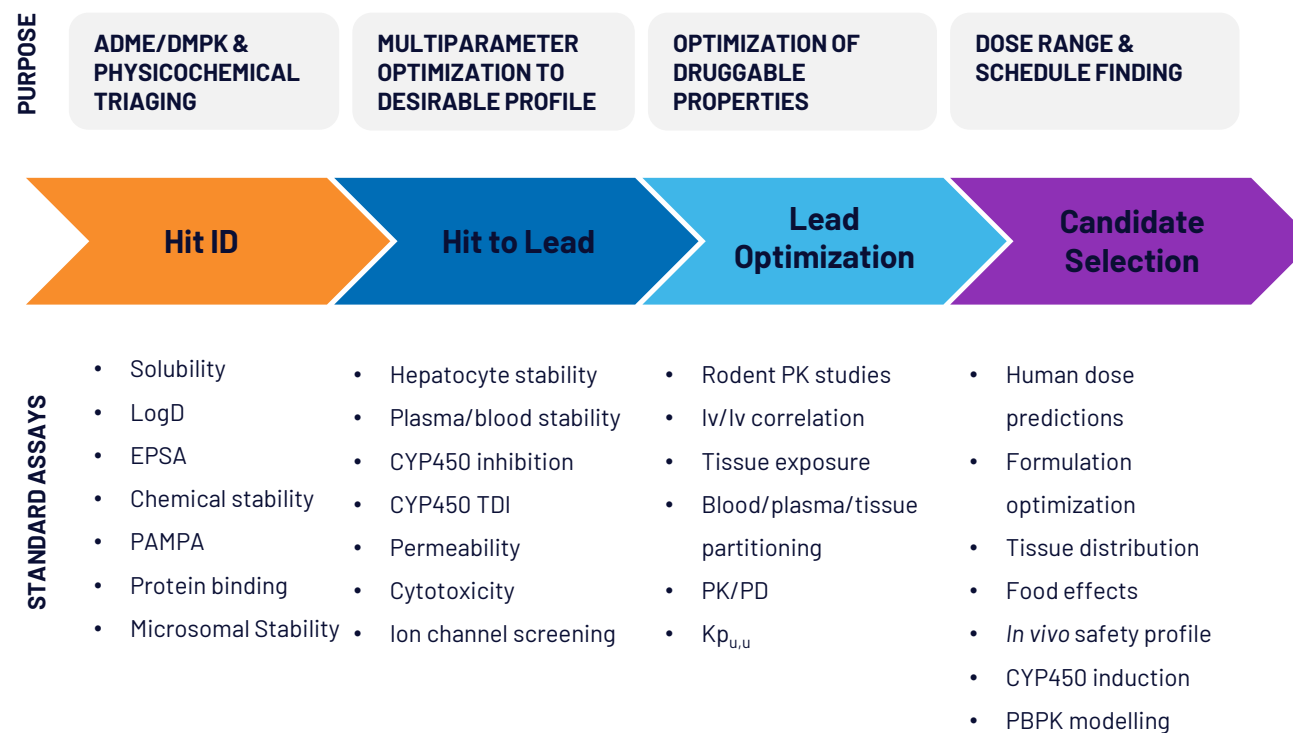
Accelerate candidate selection with fast, flexible analysis and expert support

## Why do >90% of customers return to us for further work?

- 5-day turnaround times with 98% on-time delivery
- High-throughput automated assays
- Minimal compound usage
- Flexible assay formats and reports
- Efficient compound management

## We go beyond the data for clear, actionable insight that guides your project to the clinic

- Small molecules and new modalities
- Development of bespoke cascades
- DMPK consultancy
- PK/PD, PBPK, human dose predictions

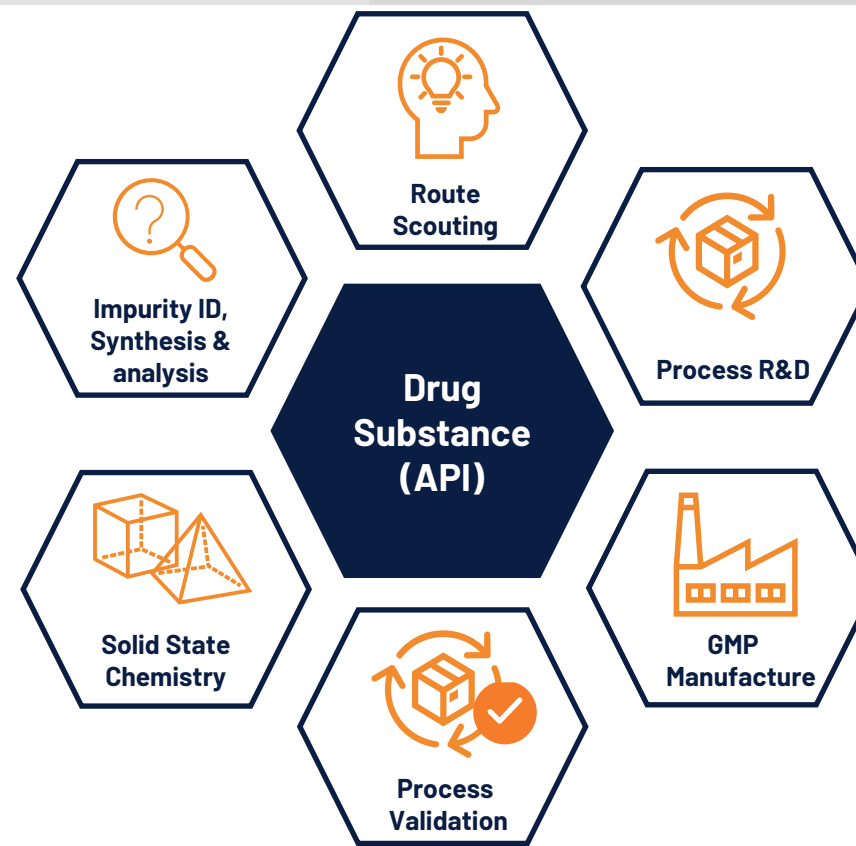


# PR&D Focused on Scalability, Safety and Cost Efficiency

Custom process development with efficiency built in

**We have extensive experience in developing innovative, scalable, safe, economical and robust processes**

- Safe, reproducible manufacturing process and deliverables
- Manufacture range from 1 g to 10 Kg APIs, key intermediates, RSMs
- Safe handling of HPAPI and controlled substances
- Successfully delivered APIs to GMP to enter Phase I/IIa clinical trials, on time, to required specification and in full quantity
- FFS and FTE models



# Proven RSM & GMP Manufacturing for Clinical Trials

We've successfully helped clients scale 20 APIs to clinic

**With our experienced team of scale-up chemists, your manufacturing is in safe hands - we've successfully helped clients scale 20 APIs to clinic**

- Multiple manufacturing areas within our QMS
- Facilities MHRA accredited (also audited by a several clients)
- Vessels up to 120 L (glass and Hastelloy) allows for different types of chemistry, allow delivery of 1g to 10Kg of API
- Ability to run hydrogenations on scale using flow chemistry and in batch (to GMP)
- Large-scale chromatography when needed
- High-potency (OEB4) API chemistry within large scale vessels in 901 and 2.112; high-potency (OEB5) API chemistry up to 10s grams within SOLO containment unit
- Handle and manufacture controlled substances schedules 1 to 4ii



# Integrated Drug Discovery Engine

Comprehensive R&D support for efficient drug discovery and development



**Expert collaboration** – Capability to address unique scientific challenges and get your project to the next milestone



**Adapted solutions** – Bringing together our world-class specialist expertise and network of trusted partners



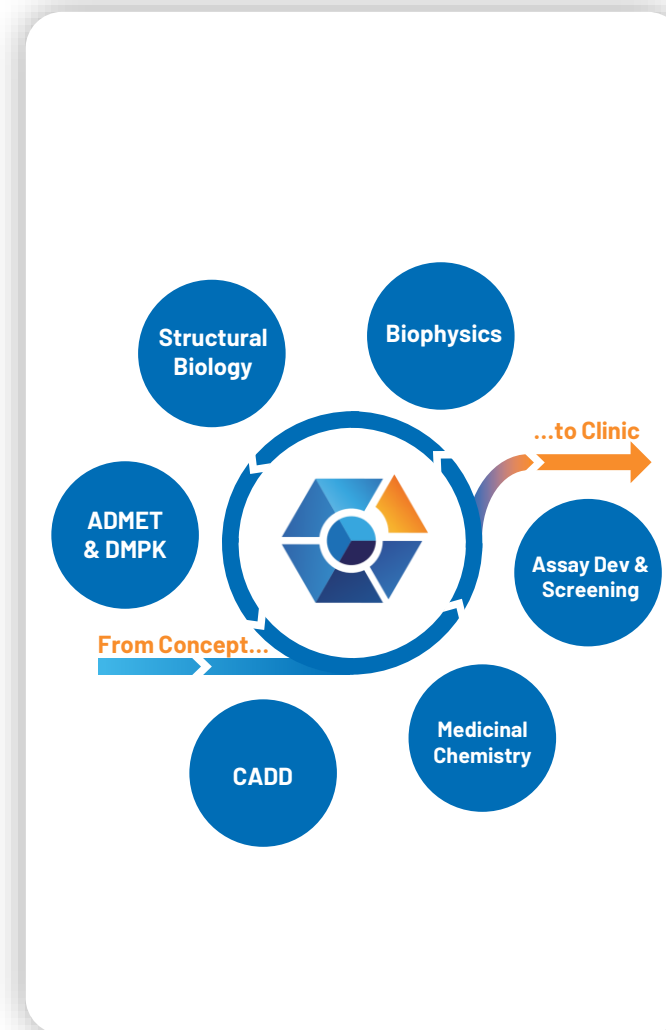
**Customized contracts** – Flexible, cost-effective solutions with fee-for-service and FTE options adapted to your program needs and internal processes



**Under-one-roof** – Accelerated Design-Make-Test-Optimize cycling with our co-located discovery services



**Adapted infrastructure** – Integrated projects include Dotmatics ELN, compound management, machine learning solutions & project management.

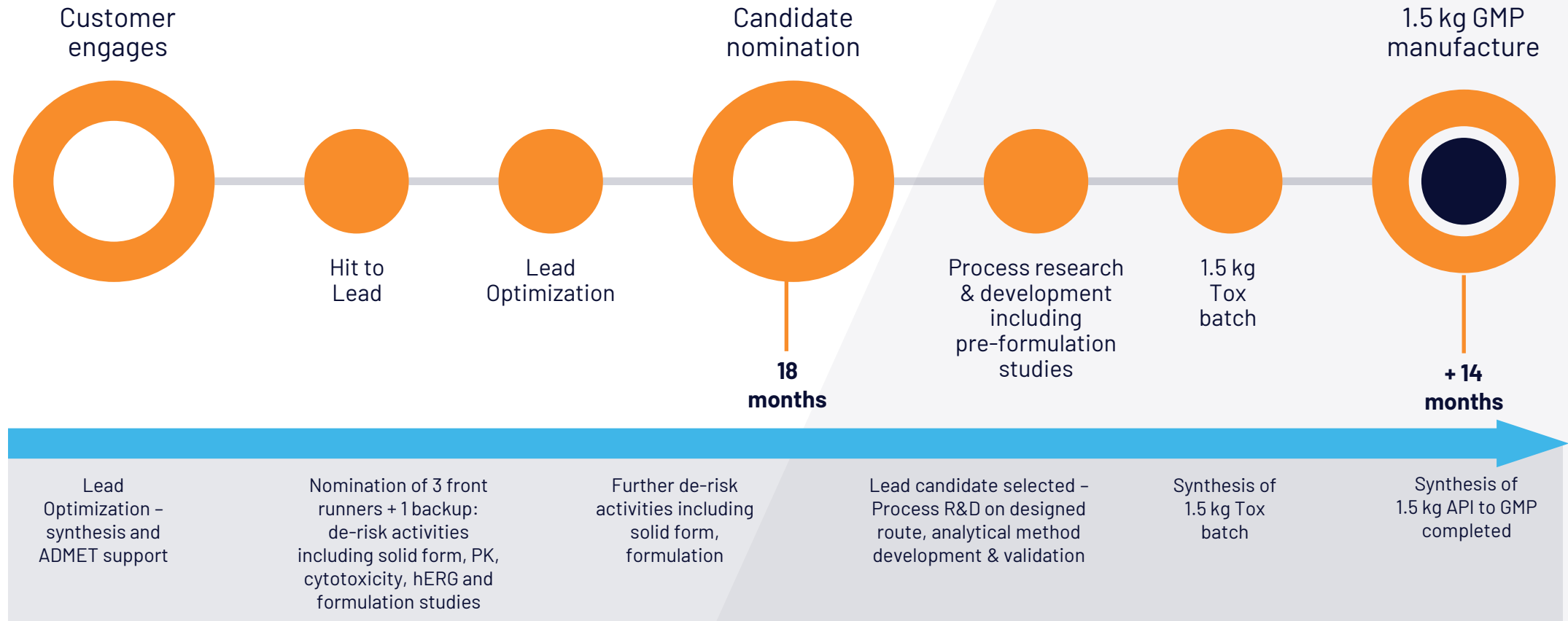


# Case Studies



# From Hit to Candidate in 18 months

Guiding an AI-based biotech with end-to-end drug discovery and development services



# Development of Selective WEE1 Inhibitors

Hit-to-Lead study to overcome poor kinase selectivity

## Project rationale:

Targeting WEE1 activity in TP53-deficient cancers is a validated therapeutic approach. Although clinically efficacious, AZD1775, the most advanced WEE1 clinical asset has poor kinase selectivity (primarily inhibits PLK1). This is hypothesised to contribute to its efficacy, but also the dose-limiting toxicology observed during clinical investigations.

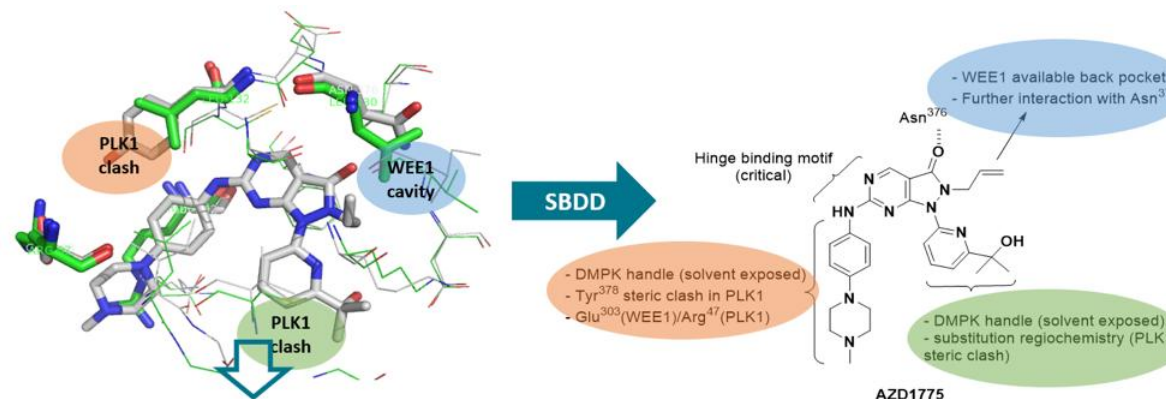
Selective WEE1 inhibitors are highly sought after tools to help elucidate WEE1 biology and provide safer 2<sup>nd</sup> generation anticancer agents

## Our approach:

- Identify novel compounds with high WEE1 selectivity over PLK1 by exploiting active site differences
- Design and implement a comprehensive and pragmatic assay cascade to identify fit-for-purpose tool compounds

## Output:

- > 400-fold WEE1/PLK1 kinase selectivity**
- > 40-fold improvement in cellular viability** over AZD1775 leading to a differentiated cellular profile
- Equivalent mouse PK profile to AZD1775



	WEE1	PLK1 (selectivity)	pCDK1 <sup>1</sup>	Cell Viability <sup>2</sup>	logD <sub>7,4</sub>	K Sol.	PPB <sup>3</sup>	Microsomal Stability	Hepatocyte Stability	Mouse PK <sup>6</sup>
	IC <sub>50</sub> (nM)	IC <sub>50</sub> (nM)	IC <sub>50</sub> (μM)	IC <sub>50</sub> (μM)	N.A.	μM	Human/Mouse (fu)	Human/Mouse (Clint) <sup>4</sup>	Human/Mouse (Clint) <sup>5</sup>	C <sub>max</sub> /C <sub>0</sub> (ng/mL)
AZD1775	4	86 (20-fold)	0.21	0.25	2.4	8.6	0.25 / 0.28	10 / 66	3 / 123	69.5
CLS-1	4	1,600 (400-fold)	0.86	10.2	2.9	7.0	0.12 / 0.40	98 / 282	17 / 148	60.6

<sup>1</sup>WEE1 cellular activity (MDA-MB-231), <sup>2</sup>MDA-MB-231 cells, <sup>3</sup>Plasma protein binding, <sup>4</sup>Clint (μL/min/mg), <sup>5</sup>Clint (μL/min/106 cells), <sup>6</sup>iv cassette (0.4 mg/kg bolus to CD1 male mice, N=3 with serial sampling)



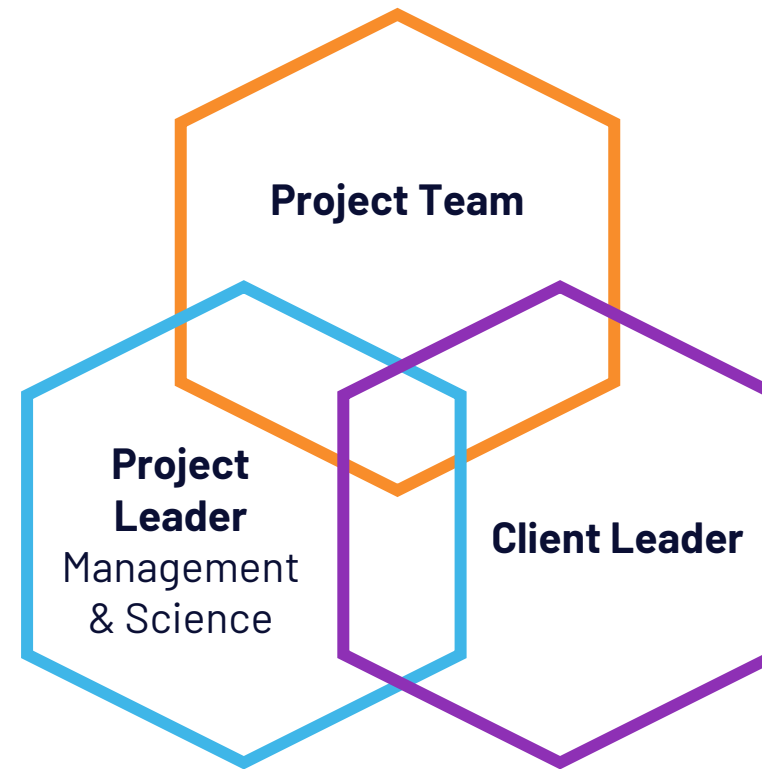
**Working with Us**

# Project Management

Industry experienced and proven senior scientific leadership

**A Project Manager with 20+ years experience will be your main point of contact, accountable for cross-matrix management including**

- Project budget and resource management
- Setting and monitoring milestones, timelines and deliverables
- Scientific project leadership and oversight
- Troubleshooting, brainstorming and ideation
- Ensuring effective collaboration – data analysis, recommending next steps



# Sustainability

Supporting you to meet your sustainability goals

We are committed to helping you meet your sustainability goals by reducing environmental impact across our scientific operations – without compromising on quality, reliability, or compliance.



## We pride ourselves on



Adoption of low-energy lab protocols, including energy-efficient equipment, optimized freezer use, and reduced standby power consumption



Precision study planning that reduces resource use, shortens cycles, and supports sustainable operations



Use of physiologically relevant human cell models reduces use of animals in translational studies



# What Our Clients Say

A true extension of your R&D team

- **> 95% of projects delivered on time or early**
- **FTE, FFS and call-off models**
- **Nimble and flexible**



“The Concept Life Sciences team consistently tailored its services to our goals while delivering quality results. But it’s not just about the results. Concept Life Sciences detailed analysis and interpretation helped us confidently chose the most appropriate next study to strengthen the case of our candidates.”

**Michael Agrez**  
CEO / CSO,  
InterK Peptide Therapeutics



“We are excited to have nominated a development candidate molecule and more to the next phase of development. There is no doubt that Concept Life Sciences has played an integral part in this journey and to enable this transition.”

**Stuart Hughes**  
CEO,  
Pathios Therapeutics







“The interaction with Concept Life Sciences is unique, in that they provide a lot of ideas and input about synthetic problems and possible solutions. They add an enormous amount of brain power to the synthetic aspects of the project.”

**Drug Discovery Leader**  
Large Pharma (7-year collaboration)

# Our Sites





## Chapel-en-le-Frith (Head Office)

-  Frith Knoll Road, Chapel-en-le-Frith, High Peak SK23 0PG
-  3400 m<sup>2</sup>
-  90
-  Chemistry, Scale-up and PR&D, RSM Synthesis, Medicinal Chemistry, Integrated Drug Discovery, Computational Chemistry, Speciality Chemicals, ADMET services, Analytical Services.







## Edinburgh Bioquarter

-  Nine, 9 Little France Road, Edinburgh BioQuarter, EH16 4UX
-  750 m<sup>2</sup>
-  38
-  Translational Biology (Immunology, Immunology, Fibrosis, Neuroscience), Spatial Biology, Cellular Screening, Molecular Biology and Biophysical Screening Services.







## Discovery Park, Sandwich

-  Discovery Park, Ramsgate Road, Sandwich, CT13 9ND
-  200 m<sup>2</sup>
-  20
-  GMP, PR&D, Scale Up, Synthetic Chemistry, Materials Chemistry, GXP Analytical.



## Dundee

-  2 James Lindsay Place, Dundee, DD15JJ
-  750 m<sup>2</sup>
-  25
-  GLP certified lab, Toxicology (Agrochemicals, Cosmetics, speciality chemicals, pharma) including Thyroid hormone assays, Endocrine Disruption Tier 2 OECD assays, Hepatocyte (in vitro MOA) studies, UGT induction assays. Bioanalysis small molecules, Method validation (Scientific/Full), GCP and non GCP sample analysis.

# Why trust Concept Life Sciences with your project?

## Accelerate Progress and Bring your Therapeutic Vision to Life

Agile drug discovery CRO with specialist capabilities and consultative solutions; repeat business with major Pharma and Biotech in Europe, U.S. and across the globe

### Tailored partnerships

Built around your goals, timelines and internal processes



### Broad capabilities, boutique care

Large-CRO capability, with the hands-on care, speed, and flexibility of a trusted specialist



### Insight beyond the data

Advanced analytics and therapeutic expertise guide smarter and faster decision making



### Integrated solutions

#### fast track discovery

Broad range of services under one roof enable efficient, coordinated progress



## 25+ Years of Innovative Science

Our team of over 250 experienced scientists have an exceptional track record of accelerating successful discovery

### 100+ patents & publications

Co-authored with our clients and on proprietary Concept Life Sciences technologies

### 1500+ client programs

Across all major target classes and therapeutic areas

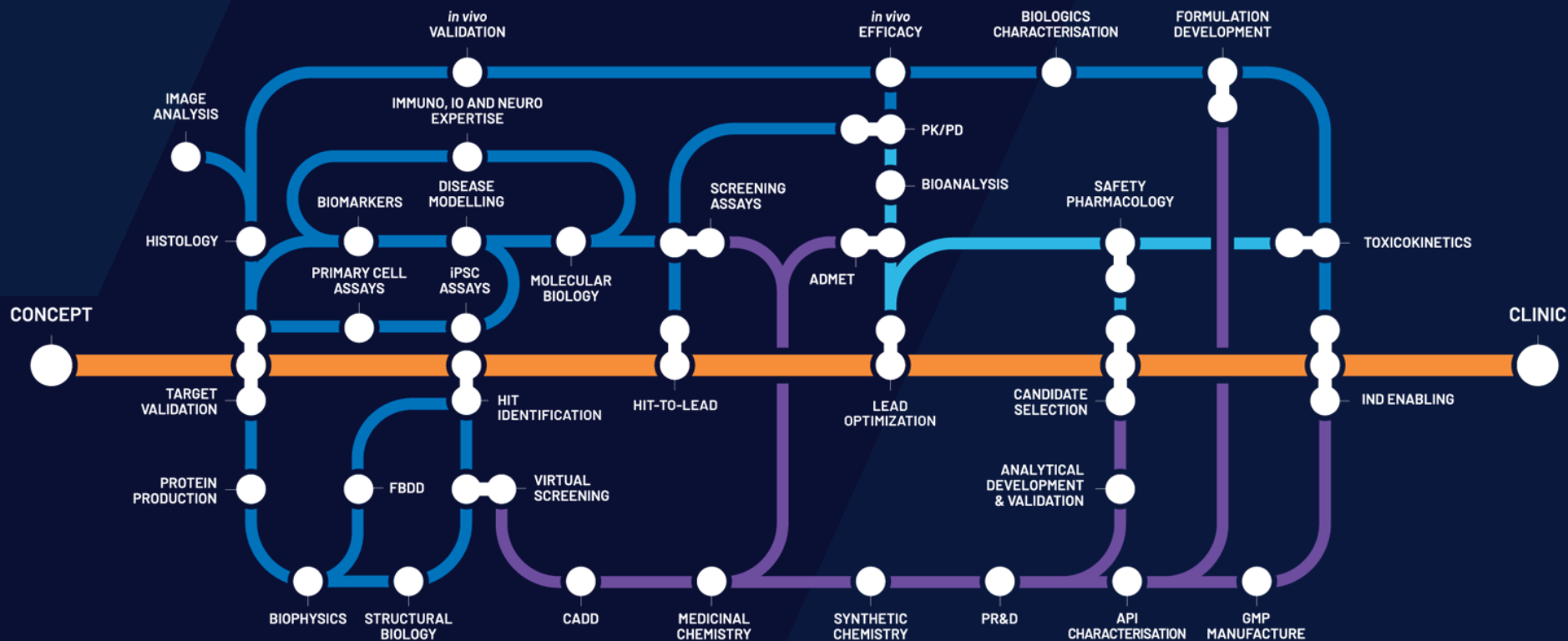
### 29 clinical candidates

Identified that entered clinical stages

### Clinical success across major therapeutic areas



## Your Trusted Partner from Concept to Clinic



# Get started with Concept Life Sciences

Steven Holshouser, PhD

Head of Business Development, North America

Contact: [sholshouser@conceptlifesciences.com](mailto:sholshouser@conceptlifesciences.com)

Explore our capabilities

[www.conceptlifesciences.com](http://www.conceptlifesciences.com)

