

better treatments by design.™ optimal dose development and manufacturing.



DEVELOPMENT



DELIVERY



SUPPLY

To be successful, new treatments require superior real world outcomes providing market differentiation and delivering the best outcomes to you, your stakeholders, and most importantly the patients who depend on your therapy.

With the Better Treatments by Design™ process, Catalent aims to achieve optimal outcomes for innovators, prescribers, and patients. We understand stakeholder needs, and match them to the widest array of drug delivery solutions to give your therapy the best potential for success on the path from Phase II through scale-up and commercial supply.

Our experience in developing thousands of therapies is backed by the widest selection of drug delivery technologies and the ability to manufacture and supply them.

EARLY PHASE DOSE
DESIGN OPTIMIZATION

IMPROVED
PATIENT COMPLIANCE

IMPROVED PATIENT
ACCEPTANCE & ADHERENCE

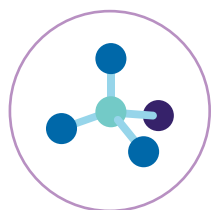
BETTER POTENTIAL OUTCOMES
FOR PATIENTS & INNOVATORS

better treatments by design™

Your therapy has so much potential—we have the passion to optimize it. Achieving preclinical formulation targets is only half the battle in successful drug development. Without solutions for compliance barriers and patient acceptance, outcomes for your drug may suffer. By applying advanced dose design principles early, we can help you achieve optimal absorption profiles as well as improve patient adherence and compliance, leading to greater payer acceptance, more scripts, and potentially better patient outcomes.



PATIENT &
STAKEHOLDER
CONSIDERATIONS



API SELECTION &
OPTIMIZATION



DRUG SUBSTANCE
FORMULATION
SOLUTIONS







OPTIMAL DOSE
FORM



ROBUST CMC
AND SCALE-UP

every stakeholder has a need

 DEVELOPER	<p>FASTER DEVELOPMENT superior dose uniformity, enhanced API stability, easier scale-up, robust manufacturability</p> <p>IMPROVED EFFICACY optimal bioavailability, high patient adherence</p> <p>MARKET DIFFERENTIATION patient-preferred dosing, better treatment</p>
 PRESCRIBER	<p>BETTER CLINICAL OUTCOMES improved absorption, minimized patient variabilities, improved drug load</p> <p>SIMPLIFIED DOSING REGIMENS reduced dosing frequency and burden, minimized food effect, fewer side effects</p>
 PAYER	<p>BETTER TREATMENT improved patient adherence, potentially better clinical outcomes</p> <p>BETTER ECONOMIC OUTCOMES improved patient compliance, more consistent disease and symptom resolution</p>
 PATIENT	<p>BETTER EXPERIENCE easier to swallow doses, superior taste masking, oral-dissolving, non-invasive administration</p> <p>BETTER ADHERENCE more accepted doses, easier dosing regimen, enhanced efficacy</p>

catalent's advanced drug delivery technologies deliver real-world solutions

Catalent has the expertise and technologies to address your bioavailability, stability and manufacturability challenges across multiple technologies. We partner with you to select the right technology to realize the full potential of your treatment with a final dose form that best addresses the needs of patients and all stakeholders.

	SOFTGEL TECHNOLOGIES		FAST DISSOLVE TABLET	MODIFIED RELEASE	STICK PACK
	RP SCHERER SOFTGEL	OPTISHELL®	ZYDIS® ODT	OPTIDOSE® CR	FLEXDOSE™ SERVICES
	OPTIGEL® BIO	OPTIGEL® LOCK	ZYDIS® BIO	OPTISHELL®	
	OPTIGEL® MINI		ZYDIS® ULTRA		
Reduced dosing burden & frequency	■			■	■
Minimized food effect	■				
Gastric protection	■		■	■	■
Oral delivery of macromolecules	■		■		
Taste masking	■		■	■	■
Easier swallowability	■		■		■
Convenience & portability	■		■		■
Abuse resistance	■				
Market differentiation			■	■	■

catalent solutions



SOFTGEL TECHNOLOGIES

The most versatile and proven dose form for complex delivery challenges, backed by 80+ years of experience bringing over 50 NDAs to market.

- **RP Scherer Softgel** for proven delivery of bioavailability challenged molecules
- **OptiShell®** non-gelatin shell enables high-temperature semi-solid fills for modified release formulas
- **OptiGel® Bio** formulations for oral delivery of macromolecules
- **OptiGel® Lock** abuse resistant formulations of DEA scheduled drugs
- **OptiGel® Mini** reduced fill capsules for easier dosing



FAST DISSOLVE TABLETS

Industry leading Orally Disintegrating Tablet (ODT) technology, dissolves in as little as three seconds with no water needed. 20+ products developed and supplied, Ideal dose form for improved patient experience.

- **Zydis® ODT** exceptional delivery for small molecules
- **Zydis® Bio** for oral delivery of macromolecules, including allergens and vaccines
- **Zydis® Ultra** for greater taste masking and increased dose loading convenience, compliance, and swallowability



MODIFIED RELEASE

Over 50 controlled, delayed, and sustained release products launched and supplied globally, handling of potent APIs, solvent processes, and DEA-controlled substances.

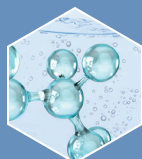
- **OptiDose® CR** technology unsurpassed capacity and range of solid oral formats for modified release dose forms
- **OptiShell®** non-gelatin shell enables high-temperature semi-solid fills for modified release formulas for bioavailability challenged molecules



STICK PACKS

Uniform dosing and customizable for specific requirements for both immediate and modified release formulations. Attractive dose form for pediatric and geriatric patient populations.

- **FlexDose™ Services** versatile and convenient unit-dose solution for powders, granules, pellets, mini tabs, micro softgels, liquid and gel formulations



BIOAVAILABILITY ENHANCEMENT SOLUTIONS

Solve the solubility and bioavailability limitations of your molecule early with our broad array of technologies and deep expertise incorporated into OptiForm® Solution Suite, our award winning data driven parallel screening platform.



OPTIFORM® SOLUTION SUITE BIO

Invasive injectable formats often result in poor patient compliance. Assess your macromolecule's potential for oral delivery with this fast, easy and cost-effective screening platform.

Catalent®

more products.
better treatments.
reliably supplied.™

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