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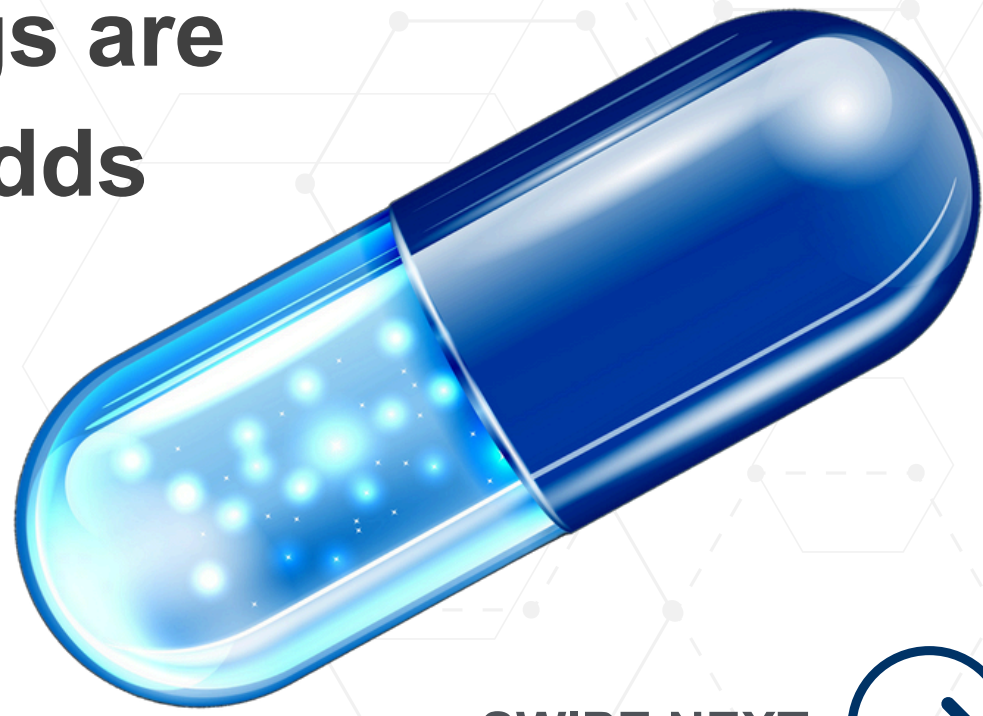
# TURNING RARE INTO ROUTINE

## How orphan drugs are defying market odds



SWIPE NEXT

# Orphan drugs are pioneering therapies for rare diseases

Securing an Orphan Drug Designation (ODD) requires meeting specific criteria, which vary across regulatory bodies worldwide

| US - Orphan Drug Designation | EU - Orphan Medicinal Product Designation |
|---|---|
| Intended for the diagnosis, prevention, or treatment of **a rare disease or condition** | Intended for the treatment, prevention or diagnosis of a disease that is **life-threatening or chronically debilitating** |
| Affecting fewer than **200,000 persons** in the United States **(<7.5 in 10,000**) | A prevalence less than **5 in 10,000** people |
| AND is **not expected to recover the costs** of development and marketing | OR is **unlikely to generate sufficient returns** to justify investing in its development |
| WHERE there must be a **scientific rationale** establishing a **medically plausible basis** for the use of the product for the rare disease or condition | WHERE **no satisfactory method** of diagnosis, prevention or treatment is authorized, OR the drug can provide **significant additional benefits** |

Achieving 'Orphan Status' unlocks valuable incentives*, including:

- *Extended market exclusivity*
- *Fee reductions*
- *Tax credits*
- *Market access alleviation*
- *Protocol assistance*

*N.B. Incentives also vary by regulatory region

Sources: Orphan Drug Designations in the U.S. and EU

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# Small targets, big gains: Orphan drugs lead the market

Orphan drugs accounted for **54% of drugs launched in the US** in the past five years

Orphan drug sales will continue to **grow 66% faster than non-orphan drugs** in the coming years

By 2028 the orphan drug market will **reach $300bn**, 20% of all non-generic prescription sales

Orphan drugs are some of the most expensive, costing on average **5x more than non-orphans**

**Half of the top ten are oncology drugs**, reflecting cancers dominance in this space

Sources: Evaluate - Orphan drugs 2023-28, IQVIA - Global Trends in R&D 2024, Deloitte - Drug launches, Orphan pricing

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# Orphan drug launches are complex, and early mistakes can be very costly

**Smaller patient populations & diagnosis difficulties**

**Complex global market navigation**

**Greater need for novel processes & pathways**

**Shorter launch preparation for late-stage acquisitions**



**Rising competition & crowding in some areas**

**Increasing market access & pricing complexities**

**Gaps in expertise, experience & capacity**

**Limited analogs for launch guidance**

**92% of small firms** meet orphan launch goals; only **53% of large ones** do

Sources: IQVIA - Orphan to opportunity, BCG - Six ways, McKinsey - Successful launches, Deloitte - Drug launches,

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# Orphans don’t stay lonely for long

**First-to-market** orphan drugs can enjoy **initial market exclusivity**, but…

**Multiple drugs** gain orphan status for the **same condition**

Competition leads to **new formulations** and **more convenient dosing options**

**80%** of rare diseases are genetic, making them **prime targets for gene therapy**

The following case studies nicely illuminate the **complex web of these critical challenges**

Sources: The Scientist

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**Prevalence (Europe):**
1–2 per 100,000

# Spinraza® for SMA:

- Spinal muscular atrophy (SMA) is a debilitating genetic disease, where individuals gradually lose the ability to walk, eat and breathe
- People with SMA have a deficiency in SMN protein due to mutation of the *SMN1* gene; Spinraza® was the first drug approved to target this underlying cause
- It was initially launched to impressive growth in an untapped market, and has accounted for about a fifth of Biogen's total product revenue
- However, Spinraza's financial performance is now declining in the face of increased competition, including more convenient dosing and gene therapy options

| | | |
|---|---|---|
| **2016** | **Spinraza®<br>ODD** | • Anti-sense oligonucleotide administered intrathecally<br>• Upregulates the production of functional SMN protein |
| **2019** | **Zolgensma®<br>ODD** | • One-off, IV infused gene therapy product<br>• For children under 2 years with infantile onset SMA<br>• An intrathecal formulation is in trial for use in older patients |
| **2020** | **Evrysdi®<br>ODD** | • Small molecule with similar mechanism to Spinraza®<br>• Orally administered for increased convenience |
| **2024 & beyond** | | • **10 additional assets are Phase 1-3; 3 are Phase 3** |

*Continued over...*

Sources: Prevalence, The Scientist, Atacana SMA

SMN = Survival Motor Neuron, ODD = Orphan Drug Designation

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# Spinraza® for SMA:

**Drug name & Cost per patient:**

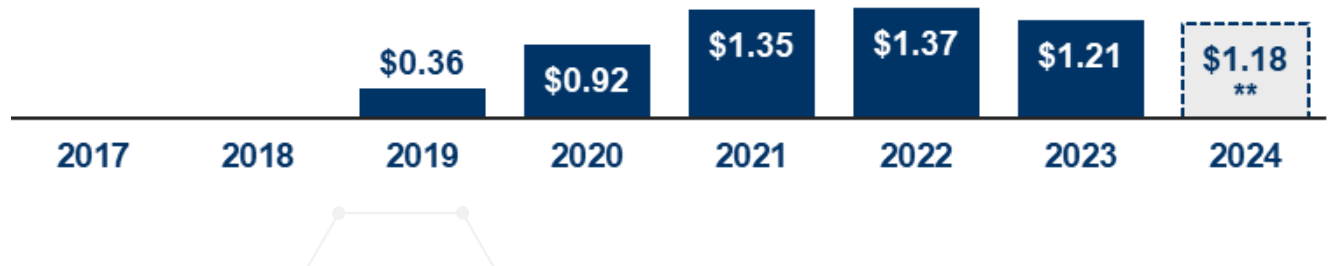
**Total revenues ($B USD)**

**Spinraza®**

$750k in year 1, $375k pa after

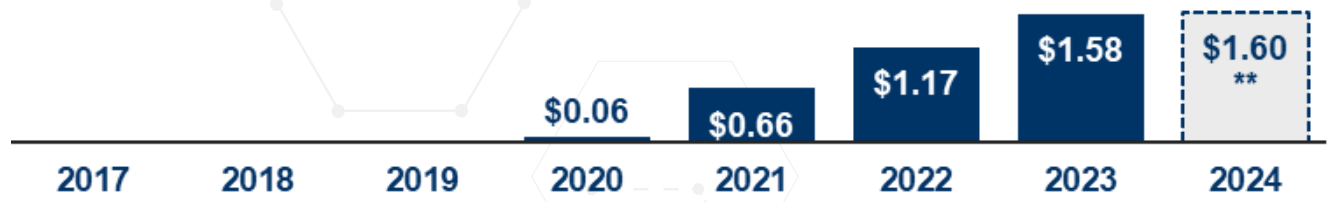

**Zolgensma®**

$2.1M per one-time treatment




**Evrysdi®**

$100-340k pa, weight dependent




- At the time of its launch, Zolgensma® was widely considered ‘the most expensive drug in the world’, although its price has since been surpassed by others
- Despite launching to great fanfare, sales of Zolgensma® are also failing to maintain momentum for various reasons, including patient access difficulties
- As the only oral, non-invasive SMA treatment that can be administered at home, Evrysdi® has a significant advantage and has rapidly gained market traction

Sources: Biogen annual reports, Novartis annual reports, Roche annual reports

* Biogen Q1-2024 report ** Estimates from companies' Q1 2024 results

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**Prevalence (Europe):**
~2.5 per 10,000

# Tarpeyo® for IgAN:

- IgA nephropathy (IgAN) is a kidney disease in which Immunoglobulin A (IgA) accumulates in the kidneys causing damage
- Most patients are diagnosed between 16 and 35 years old, with up to 40% progressing to kidney failure within 15 years, requiring dialysis or transplantation
- Agreement by the regulatory agencies to accept 'extent of proteinuria' as a reliable predictor of clinical outcome has led to a surge in clinical trials
- Tarpeyo® is the only fully approved treatment shown to reduce the loss of kidney function, but dozens of drugs (with various targets) are currently in development

| | | |
|---|---|---|
| **2021 Accel.** | **Tarpeyo® ODD** | • Oral, delayed release form of budesonide corticosteroid<br>• Accelerated FDA approval in 2021; Full approval 2023 |
| **2023 Accel.** | **Filspari® ODD** | • First In class, non-steroidal IgAN treatment<br>• Blocks the pathways that drive disease progression<br>• Full FDA approval anticipated H2-2024 |
| **2024 & beyond** | | • **23 additional assets are Phase 1-3; 7 are Phase 3**<br>• Novartis currently has three Phase 3 IgAN assets, gaining 2 from its 2023 acquisition of Chinook Therapeutics:<br>- *Fabhalta® (Iptacopan): CFB inhibitor (Registration)*<br>- *Atrasentan: ETA receptor antagonist (2024 filing)*<br>- *Zigakibart: Anti-APRIL monoclonal (≥2027 filing)* |

*Continued over...*

Sources: Prevalence, Current Therapeutic Options, Drugs for IgAN on the rise,
ODD = Orphan Drug Designation, Accel. = Accelerated approval date

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# Tarpeyo® for IgAN:

**Drug name & Cost per patient:**

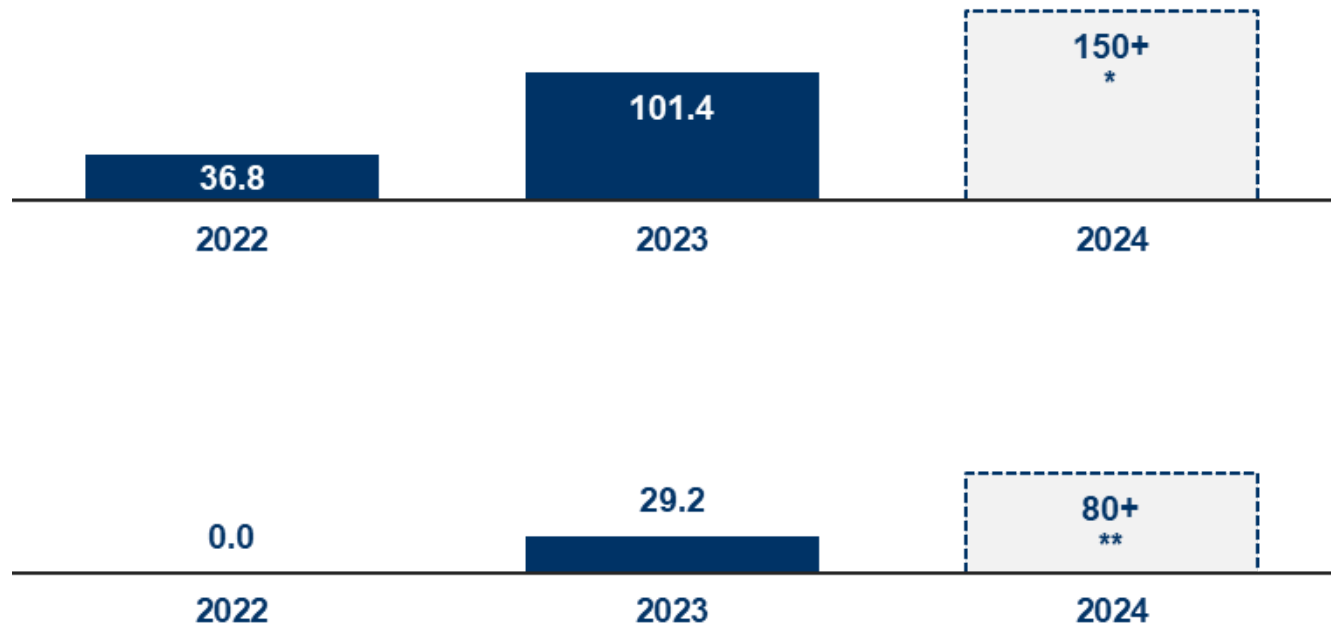
**Tarpeyo®**

$170-182k pa

**Filspari®**

$119k pa

**Total revenues ($M USD)**




- Both drugs have a similar positioning as treatments for patients with significant urine protein despite maximizing other medical therapies
- Travere Therapeutics has strategically priced Filspari® to make it a more attractive option, but Tarpeyo® maintains a strong market share due to its established presence and full FDA approval
- The approval of any of the other 23 IgAN treatments currently in development could significantly disrupt the market positions of both Tarpeyo® and Filspari®

Sources: Calliditas reports, Travere Therapeutics 2023 report, Pricing

* Calliditas Q1-2024 ** Estimate from Q1-2024 results

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# Mastering the art of successful orphan drug launches

| Patients & Community | Market Access | Patient Access | Strategy & Infrastructure |
|---|---|---|---|
| Strong commitment to & advocacy for patients | Clear incremental clinical benefit | Innovative patient identification | A well coordinated, multi-national strategy |
| Early & sustained engagement | A differentiating value proposition | Helping patients navigate the journey | A highly tailored customer model |
| Customized patient support services | Value based pricing options | An active role in education & awareness | Adequate supply & capacity ensured |

**Effective cross-functional team collaboration**

Launch is **make-or-break** for orphan drugs

Sources: IQVIA - Orphan to opportunity, BCG - Six ways, McKinsey - Successful launches

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# Crafting a winning launch strategy is business critical

Gain early foresight of the growing **competitive landscape**

Anticipate the evolving **global policy requirements** (e.g., Joint clinical assessments)

Identify the **most suitable business models** for specific customer groups (e.g., scientific)

Optimize the **market access strategy**:

- Clinical development considerations
- Appropriate access to patients
- Setting the right value (pricing)
- Optimized time to reimbursement

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# Transform market complexities into opportunities with our expert insight

## Competitive Readiness

Gain a competitive edge by uncovering competitors' strategies & tactics

## Launch Readiness

Develop a plan to optimize access, establish differentiation & maximize value

## Portfolio Strategy

Maximize return on investment through comprehensive portfolio planning

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# Expert guidance for exceptional drug launches. Start your journey with us!

## Email us at

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