CROMOS™ where the patients are PHARMA

RARE DISEASES AND DRUG DEVELOPMENT

It is estimated that 475 million people worldwide are affected by a rare disease.

Drug development for rare diseases involves significant challenges above and beyond those encountered in large trials for more common diseases.

Partnering with Cromos Pharma means working with an international CRO with a strong track record in innovative trial design, exceptional multi-country patient recruitment and proven regulatory expertise.

~80%
of rare diseases **have an identified genetic origin**

50%
of patients with a rare disease **are children** – that's about **238 million children worldwide**

5%
of rare diseases **have an approved treatment** and even less have a cure

30%
of children with a rare disease, or approximately 70 million, **will die before their 5th birthday**

DEFINING RARE DISEASES:

The definition of rare diseases varies according to country.

In the US, a disease is considered rare and eligible to qualify for Orphan Designation if it affects less than 200,000 people in the United States. The National Human Genome Research Institute states that over 6,800 rare diseases affect a total of 25-30 million Americans.

In the EU, a rare disease is defined as a condition that affects no more than 1 person in 2,000. In the EU it is estimated that 5,000-8,000 distinct rare diseases affect 6-8% of the EU population i.e., between 27 and 36 million people.

Clinical trials involving rare diseases involve a unique set of scientific and operational challenges:

1. Limited pool of eligible patients;
2. Wide geographical spread of study subjects and Investigators;
3. Large heterogeneity in patient populations with different phenotypes and various disease pathophysiology;
4. Lack of preceding clinical trials to establish a baseline standard for study execution;
5. Large heterogeneity in treatment effects;
6. Uncertainty in regulatory practice and various regulatory requirements in each country of operations.

CROMOS PHARMA AND RARE DISEASE CLINICAL TRIALS

At Cromos Pharma we have extensive experience in managing all aspects of clinical trials for rare diseases. We take an innovative and flexible approach to ensure the success of our sponsors' rare disease clinical projects.

We do this by:

Understanding patient pathways to allow us to effectively identify and recruit patients

Leveraging our extensive site and investigator network to identify the optimal sites and staff

Providing ongoing monitoring and support to sites

Employing effective strategies to retain patients throughout studies

In the last 16 years, Cromos Pharma has contributed to the analysis, design, management and/or conduct of 20+ studies in rare diseases, covering Phases II to IV, including but not limited to:

- Autism spectrum disorders
- Bulimia nervosa
- Congenital afibrinogenemia
- Glioblastoma
- Growth hormone deficiency (GHD)
- Haemophilia A
- Haemophilia B
- Hereditary angioedema
- Ménière's disease
- Niemann-Pick disease Type C
- Retinitis pigmentosa
- Sjögren-Larsson syndrome
- Von Willebrand's Disease
- X-linked adrenomyeloneuropathy

ABOUT CROMOS PHARMA

Cromos Pharma is a **US-based international** contract research organization with **16+ years' experience** in delivering fully integrated clinical research solutions in all aspects of clinical trials in all clinical phases across a wide range of therapeutic areas.

Cromos Pharma has strong regional experience **in Central and Eastern Europe** supported by an extensive network of offices with global coverage provided by its US bases in: **Portland, Oregon and Miami, Florida.** Cromos Pharma's European HQ **is in Dublin, Ireland.**

KEY CHARACTERISTICS

- 300+ clinical trials conducted in 70+ indications.
- 40,000+ patients enrolled from nearly 2,500 trial sites.
- Full professional liability coverage from Lloyd's of London.
- Extremely short startup timelines.
- Regulatory inspections and audits that attest to the highest quality of data: FDA in 2017, EMA in 2019
- Expertise in innovative, generics and biosimilar global studies (NDAs, ANDAs, BLAs, 505b2).
- Unparalleled patient recruitment – our team met or shortened project timelines in 95% of conducted trials.
- Thorough proposals & accurate planning (avg. <1 change order/project).
- Personal involvement of Executive Team.
- Team continuity (low turnover <5%).
- Local PMs with specialist regional knowledge.

KEY DIFFERENTIATORS

"NO PATIENTS - NO PAYMENT"

Our unique risk sharing program: client reimburses Cromos Pharma only for enrolled patients and not for dormant, non-recruiting sites. If we don't recruit – you don't pay.

RELIABLE FEASIBILITY & VENUE/SITE STRATEGY

Selection of the optimal path forward, including country/venue strategy- and site-selection within the recommended venues.

ACCELERATED START-UP

Our team of experts has years of experience successfully working with the FDA, EMA and with the ex-US regulators.

RAPID PATIENT RECRUITMENT

By adding sites and utilizing our referral networks in CEE we recruit at 2-3X the industry average.

CPR: CAPABILITY → PLAN → RESCUE

We provide comprehensive and collaborative rescue plans to ensure original investments yield a return and that studies are efficiently concluded.

PATIENTS FIRST

The welfare of our patients is our first priority. We make sure that they have a direct line of communication to both the investigators and to our research team.

QUALITY MANAGEMENT

Our Quality Management System is built upon Quality by Design (QbD) principles that include integrated planning, quality agreements tailored to the project, real-time project risk-based analysis and data analytics-driven targeted monitoring.

Find out how Cromos Pharma can support your next clinical project by emailing **bd@cromospharma.com**

Learn more about Cromos Pharma's Orphan Drug and Rare Disease Expertise by visiting **https://cromospharma.com/expertise/orphan-drugs/**