

# DEVELOPMENT OF CANNABINOIDS

Over the last 20 years, there has been a huge rise in patients using cannabis and cannabinoids to treat a variety of conditions, including chronic pain, cancer pain, depression, anxiety, sleep disturbances and neurological disorders.

Within the scientific, pharmaceutical, and medical community, there has been a wider acceptance of cannabinoids as a treatment and as a result, an increased rate in the use of purer and more prevalent components of the cannabinoid family, including: CBC (cannabichromene), CBD (cannabidiol), CBG (cannabigerol), CBN (cannabinol), CBDA (cannabidiolic acid) and THC (tetrahydrocannabinol).



## THE RECI PHARM OFFERING

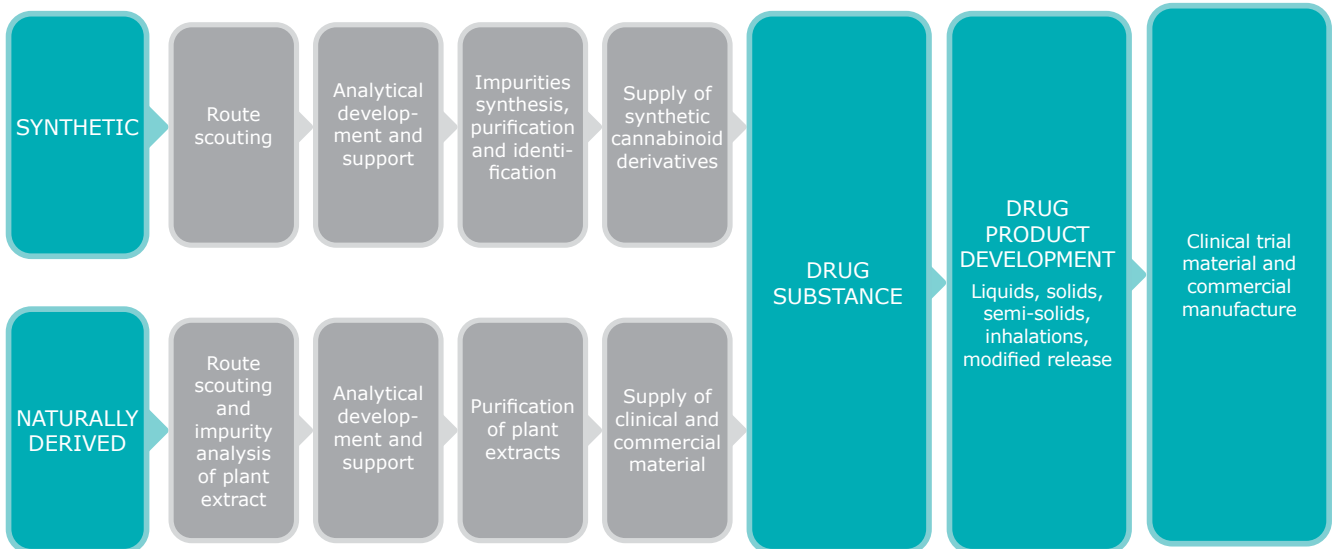
For the last 25 years, Recipharm has been supporting various global pharma companies in both development and commercial supply of pharmaceuticals, including cannabinoids.

The principle components of cannabinoids, known as CBD and THC, are often isolated from botanical sources, these extracts are classed as controlled substances. At Recipharm, we have the appropriate licencing to support all of our clients in this area. And, to further assist researchers and pharma companies working with cannabinoids, we have also developed new, synthetic routes to five different cannabinoids, including CBDA, CBGA, and three metabolites. In addition, we have also identified a novel, scalable, synthetic route to CBD.





## RECIPHARM CAN SUPPORT BOTH SYNTHETIC AND NATURALLY DERIVED CANNABINOIDS



### At Recipharm we offer:

- ▶ Consistent support, from preclinical to market authorisation to commercial supply; for both drug substances and cannabinoid drug products
- ▶ Capabilities to handle various stages of synthetic and naturally derived cannabinoids
- ▶ Purifying plant extracts to produce the desired cannabinoid substance
- ▶ Drug product development for a wide range of dosage forms with cannabinoid product (liquids, solids, semi-solids, inhalation)



**About Recipharm:** Recipharm is a leading contract development and manufacturing organisation (CDMO) headquartered in Stockholm, Sweden. We operate development and manufacturing facilities in France, Germany, India, Israel, Italy, Portugal, Spain, Sweden, the UK and the US and are continuing to grow and expand our offering for our customers.

Employing around 9,000 people, we are focused on supporting pharmaceutical companies with our full service offering, taking products from early development through to commercial production. For over 25 years we have been there for our clients throughout the entire product lifecycle, providing pharmaceutical expertise and managing complexity, time and time again. Despite our growing global footprint, we conduct our business as we always have and continue to deliver value for money with each customer's needs firmly at the heart of all that we do. That's the Recipharm way.