

Product Showcase DELIVERING INJECTIONS: CCBIO'S INJECTOR PLATFORM PRODUCTS

THE IMPORTANCE OF SELF-INJECTION

There is clear evidence to suggest that self-injection is an effective strategy for improving adherence to medication in gastrointestinal therapies. This is largely because pen injectors, compared with traditional injections administered in a clinical setting, reduce discomfort and enhance user-friendliness (Figure 1).¹

The self-injection process has evolved over time to meet the demands of a variety of medications, resulting in the development of cartridge-based designs with variable dosing and multidose capabilities, as well as designs based on singleuse prefilled syringes (PFS). Medications that require frequent daily injections and make use of self-injection devices include insulin, human growth hormone, follicle-stimulating hormone, adrenaline (epinephrine), glucagon-like peptide 1 (GLP-1) and parathyroid hormone.

Future advancements will likely focus on the sustainability and reusability of self-injection pens. Reusable injection pens were first introduced in 2000, primarily targeting insulin and the diabetes market. Today, over 12 million reusable pens and more than 1.7 billion prefilled pens are sold annually, with GLP-1s driving additional growth in the demand for injection pens.



Figure 1: CCBio's portfolio of self-injection products.

Property	Flora	Felice Dose	Quick Dose	lanus
Device Type	Electronic-assisted autoinjector	Electronic-assisted on-body injector	Electronic-assisted on-body injector	Two-drug autoinjector
Usage	Mutidose; reusable	Single dose; disposable	Mutidose; reusable	Single dose; disposable
Dose Volume	0.01–1 mL	0.1–40 mL	0.01–40 mL	0.1–3 mL
Injection Needle	User installs PFS or cartridge with 32G needle	Hard needle: 27G Soft needle: 25G	Hard needle: 27G Soft needle: 25G	Two 27G

Table 1: CCBio's injector platform products.



Figure 2: CCBio's portfolio of advanced injector platform products.



CCBIO'S SELF-INJECTION PRODUCT PORTFOLIO

From initial design to practical market applications, CCBio has developed a suite of innovative injector platform products based on patient-centric usage patterns for self-injection devices (Figure 2). These injectors, both autoinjectors and on-body injectors, are designed to provide pharmaceutical partners with superior solutions, offering enhanced convenience and functionality (Table 1).

Cartridge-Based Design

CCBio also provides an array of cartridge-based injection pens (Figure 3). The primary container format for these devices is a 3 mL glass cartridge (Table 2), which provides a reliable and versatile

Property	Kratos	Aurora	Castor	Pollux
Device Type	Manual pen	Spring-assisted pen	Manual pen	Manual pen
Usage	Fixed 0.08 mL dose; disposable	Mutidose; disposable	Mutidose; disposable	Mutidose; reusable
Dose Volume	0.08 mL	0.01–0.8 mL	0.01–0.6 mL	0.01–0.6 mL

Table 2: CCBio's cartridge-based design injector platform products.



Figure 4: CCBio's PFS-based pen injectors.

solution for storing and delivering injectable drugs via the subcutaneous administration route.

PFS-Based Design

Completing its product portfolio, CCBio offers two single-use autoinjectors (Figure 4). The primary container format for these devices is either a 1 or a 2.25 mL PFS (Table 3), which provides a reliable and versatile solution for storing and delivering injectable drugs via the subcutaneous administration route.

CCBIO'S AUTOMATED ASSEMBLY LINE FOR SELF-INJECTION PRODUCTS

CCBio is proud to be a fully Taiwanbased company, taking full advantage of Taiwan's strong advantages in semiconductors, metal processing

Property	Salus	Proserpine
Device Туре	27–29G autoinjector	27–29G autoinjector
Usage	Single dose; disposable	Single dose; disposable
Dose Volume	0.5–0.75 mL	0.3–2 mL

Table 3: CCBio's PFS-based injector platform products.



Figure 5: CCBio's automated assembly line.

and automation. The company offers a fully integrated service, applying toptier craftsmanship to its products and manufacturing processes (Figure 5). As a trusted supplier, CCBio ensures that its customers receive comprehensive, high-quality solutions tailored to their requirements.

REFERENCE

 Molina JT, Robledillo JCR, Ruiz NC, "Potential Benefits of the Self-Administration of Subcutaneous Methotrexate with Autoinjector Devices for Patients: A Review". Drug Healthc Patient Saf, 2021, Vol 13, pp 81–94.



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