

Trends

① Patent cliffs

Copaxone, Viagra, Strattera, Sustiva and Viread lost patent protection in 2017, and are beginning to see generic competition. Expect to see revenue losses for these products in 2018.

③ Drug pricing

US President Donald Trump accused the pharmaceutical industry of "getting away with murder" in reference to drug prices. The administration took no major action against drug companies in the past year.

② Opioid crisis

41 US state attorneys general announced lawsuits against opioid manufacturers in response to rampant opioid addiction in the country. The CDC estimates the prescription opioid abuse epidemic has an economic burden of \$78.5B a year.

Capacities

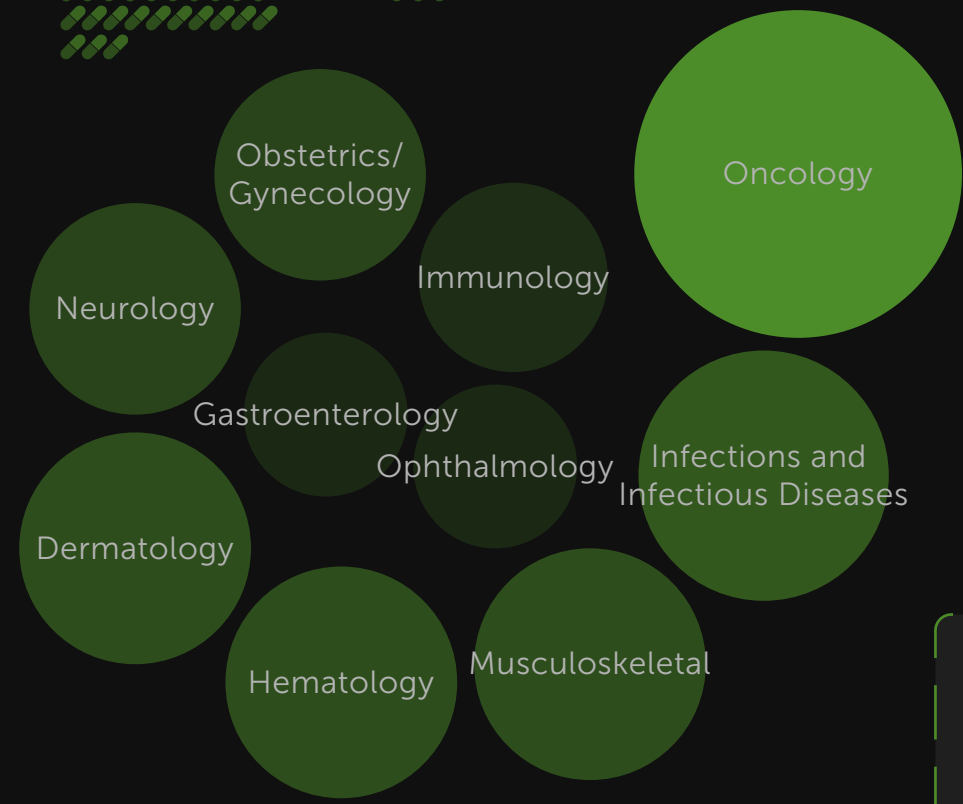
35 CDMOs announced or completed facility expansions in 2017, increasing their small molecule, biologic, and drug product manufacturing capabilities and capacities.

2017 YEAR IN REVIEW



33 small molecules

13 biologics



46 drugs were approved by the FDA in 2017. Oncology was the most prevalent therapeutic area, with 12 drugs approved for oncology applications. Five biosimilars were also approved.

New drugs

CDMOs increase their **serialization capabilities** in anticipation of the US Drug Security Quality Act

CDMOs increase their **serialization capabilities**, also known as CAR-T

CDMO capacities and capabilities increase with higher biologic production

Demand for cold chain logistics increase

18 site and company acquisitions also increased CDMO capacities and capabilities



Over 60 mergers and acquisitions were announced in 2017. QuintilesIMS also rebranded to IQVIA in late 2017.

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