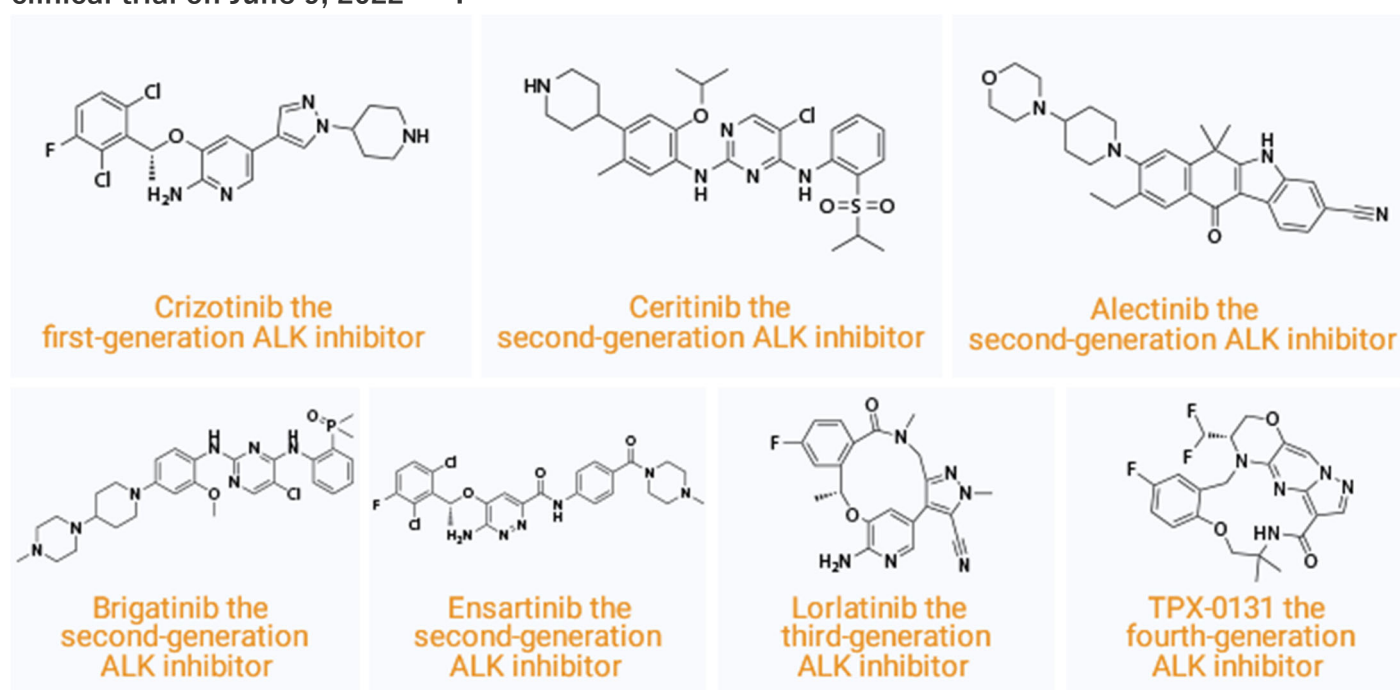


Building Blocks / Pharmaceutical Intermediates / Chemical Reagents

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As a receptor tyrosine kinase of insulin receptor (IR) subfamily, anaplastic lymphoma kinase (ALK) has been validated to play important roles in various cancers, especially anaplastic large cell lymphoma (ALCL), non-small cell lung cancer (NSCLC), and neuroblastomas<sup>[1]</sup>. Currently, five small-molecule inhibitors of ALK, including Crizotinib, Ceritinib, Alectinib, Brigatinib and Lorlatinib, have been approved by the U.S. FDA against ALK-positive NSCLCs. To address the unmet need of the emergence of multiple combinations of acquired double ALK mutations, there are currently two 4G ALK TKIs (TPX-0131 and NVL-655) being developed. TPX-0131 has been designed with a novel compact macrocyclic structure and has shown preclinical potent inhibition of wildtype and numerous ALK mutations. NVL-655 is a novel brain-penetrant ALK-selective inhibitor created to overcome several limitations observed with currently available therapies and it started a phase 1/2 clinical trial on June 9, 2022<sup>[2-10]</sup>.



A series of building blocks will be used as molecular fragments in the design of ALK inhibitors.

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