

Chemical development, from laboratory-scale to manufacturing



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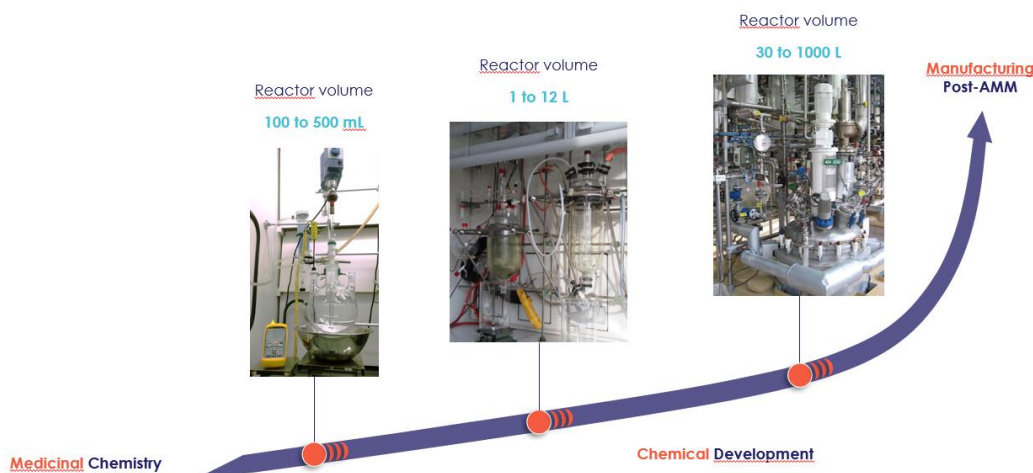
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Located in the heart of Normandy, **Oril Industrie** is a subsidiary of the independent French pharmaceutical group **Servier**. With 1,000 employees divided between the production unit and the R&D Centre, Oril Industrie's mission is to develop, produce and supply the active ingredients of the Servier Group's original medicines (98% of the Group's APIs) in accordance with the highest standards of quality, safety and reliability.

In the R&D Centre (Chemical & Analytical Development), the Chemical Development department is responsible for ensuring the link between medicinal chemistry and industrial-scale production.¹ Through its various missions (scale-up, innovation, troubleshooting), the tasks assigned to development chemists can be divided into three phases, aligned with the API development stages:

1. **Adapt** medicinal chemistry protocols in order to rapidly produce drugs candidates for the pre-clinical phases.
2. **Develop** and **Identify** industrializable syntheses considering various criteria (SELECT methodology)².
3. **Optimize** the synthesis routes selected at the end of the previous phase.



Scheme 1. Development of an API, from MedChem (lab-scale) to manufacturing (industrial scale).

References

¹ Zhang, T. Y. *Chem. Rev.* **2006**, *106*, 2583-2595.

² Butters, M.; Catterick, D.; Craig, A.; Curzons, A.; Gilmore, A.; Green, S. P.; Marziano, I.; Sherlock, J.-P.; White, W. *Chem. Rev.* **2006**, *106*, 7, 3002–3027.