

Our Process ^[1]

Focus on the patient, follow the science.

Video of Drug discovery and development process

We create innovative medicines and prioritize our work based on unmet medical need and strong scientific understanding of disease - not the size of the potential commercial market.

Novartis researchers are working to map complex protein signaling networks known as molecular signaling pathways inside of cells. These molecular pathways are highly controlled and interconnected signal-relay systems, similar to communication networks, and are responsible for normal cell function. When a protein in a pathway does not function properly, the result can be abnormal signaling and disease. Scientists at the Novartis Institutes for BioMedical Research (NIBR) ^[2] develop small molecule drugs or antibodies to target key nodes within pathways that, when defective, lead to disease.

To translate scientific discoveries from the lab bench to the clinic, Novartis uses proof-of-concept clinical trials (small scale studies used to get an early read on a drug's safety and effectiveness) to help find and advance the most promising drug candidates. These proof-of-concept studies often focus on treating a rare, but genetically well-defined disease.

By focusing on the patient and following the science, Novartis has discovered innovative treatments for disorders ranging from cancer to degenerative disease.

Thanks to this approach, Novartis has one of the strongest and most productive pipelines in the industry, with 200 projects in clinical development, many of which are new molecular entities.

Drug discovery and development process

Novartis drug discovery and development efforts begin and end with the patient. Our R&D efforts are guided by two principles:

- Do we understand the underlying mechanism or cause of the disease?
- Does this disease represent a significant unmet medical need in patients?

If the answer to both questions is "yes," then we develop a research program aimed at better understanding the disease and finding an effective chemical or biologic based medicine.

Accordion Type:

Collapsible

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Links

[1] <https://www.novartis.in/our-work/drug-development/our-process>

[2] <http://www.nibr.com/>