We are scaling AI across key priority areas in R&D

Discovery | **Lead Op** | **Preclinical** | **Early clinical development** | **Clinical planning & operations** | **Analytics** | **Reg** | **Post-approval**

Target ID
In-silico modeling to deepen disease understanding and identify novel targets

Generative Chemistry
Simultaneous optimization of desired chemical properties and synthesis routes for small molecules

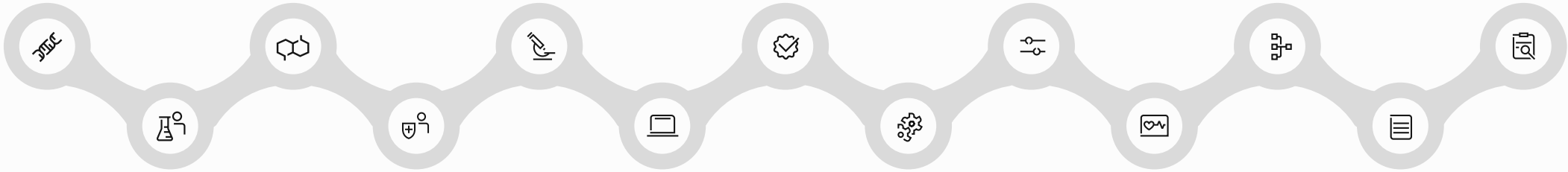
Translational AI
AI-driven patient insights for more precise indication selection, endpoint prediction and trial outcomes modeling to strengthen early development plans

Predictive compliance
Signal detection and safety risk forecasting

Digital protocol design & optimization
AI-driven protocol generation accelerating study startup and minimizing downstream amendments

Agentic clinical data & programming
Agentic systems automate data processing and statistical programming, accelerating cycle times

Generative medical content & evidence
Automated creation of compliant medical information, publications and evidence packages expands medical engagement capacity with leaner teams



AI for Biologics
Earlier and improved prediction of structure affinity and developability for biologics molecules

Predictive Safety
Faster and deeper characterization of development-limiting safety signals and fewer animal tox studies

In silico CMC
AI-enabled in silico prediction of formulation, stability and manufacturability

Predictive Clinical planning
Leverage Intelligent Decision System simulation-first strategy to integrate design, planning & next-best action execution

Agentic clinical operations
AI agents automate operational workflow, accelerating decision cycles

Intelligent document generation
End-to-end generative systems produce consistent, submission-ready regulatory and clinical documents accelerating cycle time

Select external engagements

HELMHOLTZ MUNICH · Helical · Chai Discovery · Isomorphic Labs · DECIPHEX · FACULTY · ANTHROPIC · aws

EPFL · RELATION · Generate:Biomedicines · Schrödinger · causaly · Dandelion · Palantir · Microsoft

Novartis use of AI is supported by appropriate human judgement and oversight.

NOVARTIS