Apr-Jun, 2023

[34] <u>DS-1000</u> focused on the 'Experiment on data. [35] <u>Coscientist</u> present the chemical research.

Aug, 2024

[15] <u>AI-Scientist:</u> emonstrate the firstfully autonomous, end-to-end 'Paper Generation' loop.

Jan, 2025

[26] <u>HypER:</u> Literaturegrounded hypothesis generation and distillation with provenance.

Phase II: Closed-Loop Integration

Mar, 2025

[23] <u>ResearchBench</u>: First large-scale benchmark for evaluating LLMs with a near-sufficient set of sub-tasks of scientific discovery.

Phase I: Foundational Modules

Oct, 2023

[36] <u>BioPlanner</u>: automatic evaluation in biology.
[37] <u>MLAgentBench</u>: AI research agents for longhorizon tasks.

Sep-Dec, 2024

[38] <u>SciAgents</u> and [39] <u>IdeaBench</u> are for Idea. [40] <u>Quantum-Agent-SDL:</u> Agents for self-driving laboratories.

Feb, 2025

[6] AI-Scientist-v2: leverages a novel progressive a: gentic tree-search methodology.
[41] Curie: embed rigor into the experimentation process.

Phase III: The Frontier: Scalability, Impact, and Collaboration

Oct, 2025

[19] <u>SR-Scientist</u>: Scientific Equation Discovery With Agentic AI.
[47] <u>Freephdlabor</u>: opensource multiagent fully dynamic workflows.

Sep, 2025

[46] <u>DeepScientist</u>: a goal-oriented, autonomous scientific discovery.
[31] <u>AutoLabs</u>: Multi-Agent Systems for Autonomous Chemical Experiment.
[45] Agentic AutoSurvey.

May, 2025

[16] <u>PiFlow</u>: treats automated scientific discovery.
[43] <u>AI-Researcher</u>: a fully autonomous research system.
[44] <u>EXP-Bench</u>: a semiautonomous Research pipeline.

Apr, 2025

[42] <u>DeepResearcher</u>: the first comprehensive framework for end-to-end training of LLM-based deep research agents through scaling RL.