**COST OF MISSING SCIENTIFIC INFORMATION IS HIGH**

- **Lost Profitability**
  - >$400M RISK OF COMMODITIZATION

- **R&D Spend Inefficiency**
  - >$40B REDUNDANT EXPERIMENT

- **Reputational Risk**
  - >$600M PATENT INFRINGEMENT

**POORLY MANAGED SCIENTIFIC INFORMATION AFFECTS R&D EFFICIENCY**

- **18% Time Lost**
  - IN SEARCH VS. RESEARCH

- **$15K–$20K**
  - COST PER YEAR, PER SCIENTIST

- **R&D cycles are too long and costly**

**COST TO MANAGE SCIENTIFIC INFORMATION CONTINUES TO ESCALATE**

- **Volume**
- **Complexity**
- **Interconnectedness**

**SCIENTIFIC INFORMATION TRENDS**

- 1978
- 2000
- PRESENT

**COST OF R&D**

- >$335M

**YET, INVESTMENT IN EXTERNAL SCIENTIFIC INFORMATION SOURCES REMAINS LOW**

- <0.25%
COST OF MISSING SCIENTIFIC INFORMATION IS HIGH

- **Lost Profitability**: $400M risk of commoditization
- **R&D Spend Inefficiency**: $40B redundant experiment
- **Reputational Risk**: $600M patent infringement

COST TO MANAGE SCIENTIFIC INFORMATION CONTINUES TO ESCALATE

- **Volume**: Scientific Information Trends
  - 1978
  - 2000
  - Present
- **Complexity**: Interconnectedness
- **Interconnectedness**: Further information on trends and complexity.

POORLY MANAGED SCIENTIFIC INFORMATION AFFECTS R&D EFFICIENCY

- **18% Time Lost**: In search vs. research
- **$15K–$20K**: Cost per year, per scientist
- **R&D cycles are too long and costly**

YET, INVESTMENT IN EXTERNAL SCIENTIFIC INFORMATION SOURCES REMAINS LOW

- **$335M**: Cost of R&D
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Being efficient in the lab requires a great synthetic plan. Your chemists are juggling many variables in their synthetic planning, from the cost of materials, to the complexity of the procedure, to the final yield. For any known molecule, SciFinder® will perform a full retrosynthetic analysis utilizing the renowned CAS collection of reactions, presenting results in a highly intuitive retrosynthesis plan. The plan is easily navigated to evaluate alternative routes and also offers quick access to information on material suppliers, step by step methods curated by experts, product yields, and more. Synthesis planning has never been easier.

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In order to successfully manage your research portfolio and bring your innovation to market, it’s essential to first understand the technology landscape. SciFinder® can help answer a host of IP-related questions such as: Where are the opportunities for innovation? Are there infringement risks? Who else is working in this space? SciFinder® gives you access to industry leading capabilities like patent Markush searching and content such as chemically annotated patents, so you can stay on top of the technological landscape.
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INDUSTRY LEADERS ACROSS R&D ORGANIZATIONS RELY ON CAS SOLUTIONS

<table>
<thead>
<tr>
<th>Industry</th>
<th>Top Rankings</th>
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<tbody>
<tr>
<td>Pharma</td>
<td>48 of the top 50</td>
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<tr>
<td>Biotech</td>
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<td>Chemical</td>
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