

ScienceDirect AI 主要功能简介及操作说明

一、ScienceDirect AI 问答助手——全文文章和书籍章节的检索与总结

用户可以使用自己的语言描述所需内容及检索目的，从 1400 万篇文章和书籍章节的全文内容中检索并获取答案。ScienceDirect AI 将在其逾千万篇文献中检索，提供带有参考文献的总结、每个参考文献的原文片段以及简短的相关洞察，同时链接回原始文献。

视频简介：<https://weixin.qq.com/sph/AZtCZSfK9>（微信链接）

访问方式：

1. 通过专属链接进入：<https://www.sciencedirect.com/ai>

在 ScienceDirect 的首页及各页面顶部均设有该链接入口（图 1）

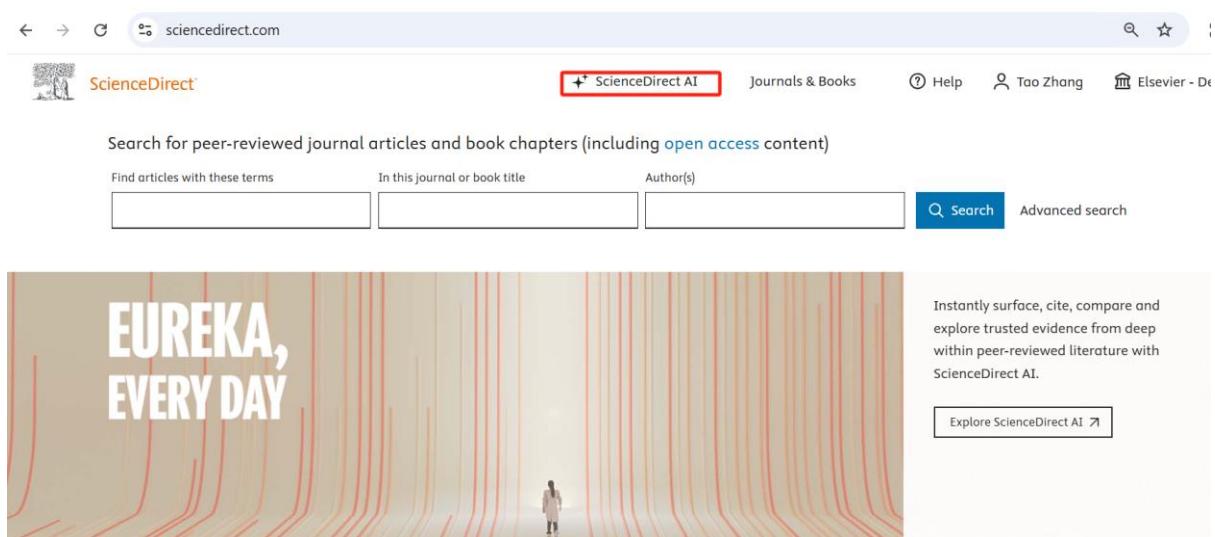


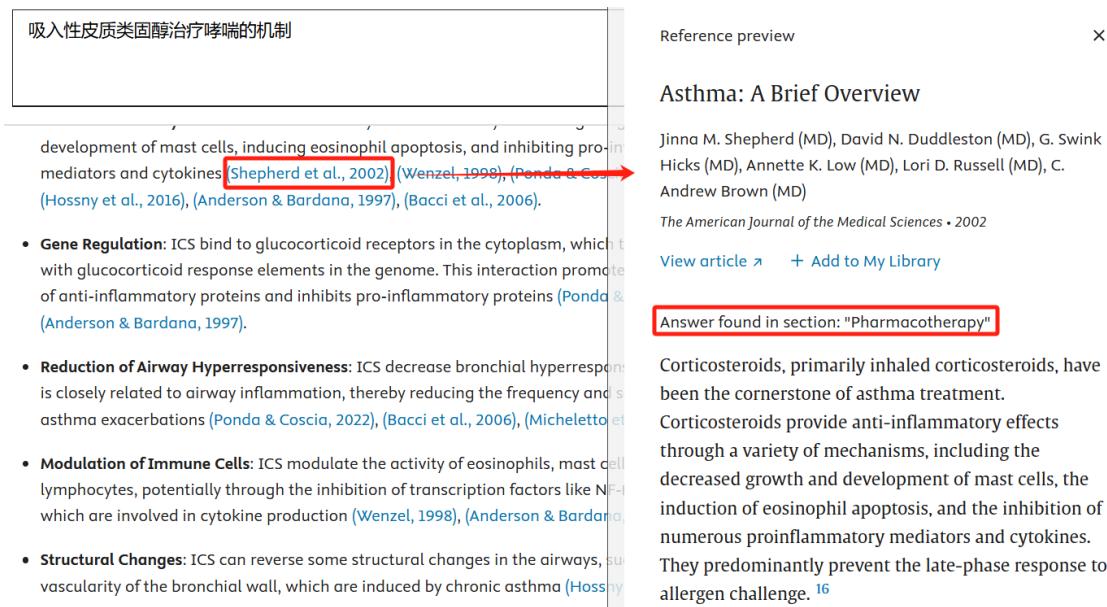
图 1

1) 问题输入：在页面输入框内输入需要提问的科学问题（支持中文提问）（图 2）



图 2

2) 查看参考文献: 每一条答案均附带参考文献, 点击参考文献链接即可查看文章基本信息及答案所在原文章节 (不需要全文访问权即可查看) (图 3)。



吸入性皮质类固醇治疗哮喘的机制

development of mast cells, inducing eosinophil apoptosis, and inhibiting pro-inflammatory mediators and cytokines [Shepherd et al., 2002] (Wenzel, 1998), (Ponda & Coscia, 2002) (Hossny et al., 2016), (Anderson & Bardana, 1997), (Bacci et al., 2006).

- **Gene Regulation:** ICS bind to glucocorticoid receptors in the cytoplasm, which then interact with glucocorticoid response elements in the genome. This interaction promotes the expression of anti-inflammatory proteins and inhibits pro-inflammatory proteins (Ponda & Coscia, 2002; Anderson & Bardana, 1997).
- **Reduction of Airway Hyperresponsiveness:** ICS decrease bronchial hyperresponsiveness, which is closely related to airway inflammation, thereby reducing the frequency and severity of asthma exacerbations (Ponda & Coscia, 2002), (Bacci et al., 2006), (Micheletto et al., 2006).
- **Modulation of Immune Cells:** ICS modulate the activity of eosinophils, mast cell and dendritic cells, and lymphocytes, potentially through the inhibition of transcription factors like NF- κ B, which are involved in cytokine production (Wenzel, 1998), (Anderson & Bardana, 1997).
- **Structural Changes:** ICS can reverse some structural changes in the airways, such as thickening of the bronchial wall and narrowing of the airway lumen, which are induced by chronic asthma (Hossny et al., 2016).

Asthma: A Brief Overview

Jinna M. Shepherd (MD), David N. Duddleston (MD), G. Swink Hicks (MD), Annette K. Low (MD), Lori D. Russell (MD), C. Andrew Brown (MD)

The American Journal of the Medical Sciences • 2002

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Answer found in section: "Pharmacotherapy"

Corticosteroids, primarily inhaled corticosteroids, have been the cornerstone of asthma treatment. Corticosteroids provide anti-inflammatory effects through a variety of mechanisms, including the decreased growth and development of mast cells, the induction of eosinophil apoptosis, and the inhibition of numerous proinflammatory mediators and cytokines. They predominantly prevent the late-phase response to allergen challenge.¹⁶

图 3

3) 推荐相关问题: 在页面底部会自动推荐跟用户所问问题相关的 3 个问题 (图 4)。

Ask another question:

↳ 吸入性皮质类固醇如何调节免疫反应以缓解哮喘症状 ↗

↳ 吸入性皮质类固醇对气道炎症的影响机制是什么 ↗

↳ 吸入性皮质类固醇在哮喘治疗中的作用与机制分析 ↗

图 4

2. 通过检索界面进入: 在 SD 检索界面输入关键词检索, 在检索结果页面, 检索词的下方, 会有 ScienceDirect AI 功能框, 点击 “Try it out” 按钮, 会自动将用户输入的关键词进行提问, 并跳转到”问答助手“页面 (图 5)。

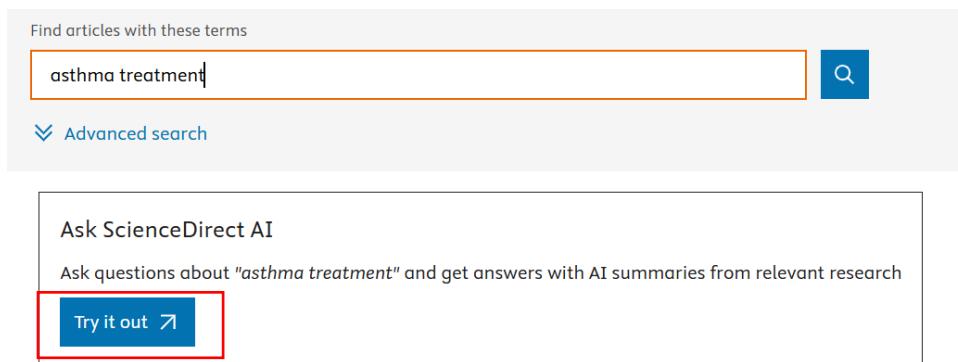


图 5

二、阅读助手——与 ScienceDirect 中的文章对话

对话功能可帮助科研人员就特定研究论文或书籍章节进行深入问答。用户可以点击回答中的参考文献，跳转到答案来源的相关段落。该功能还会向科研人员建议合适的研究问题。

视频简介：<https://weixin.qq.com/sph/AwWjgoXn5>（微信链接）

访问方式：

1. 通过“问答助手”结果推荐参考文献进入：如果“问答助手”推荐的答案文章为 ScienceDirect 文章，且用户有文章访问权，则可以点击“View article”链接进入原文页面，阅读助手会自动在页面右侧弹出（图 6）。

吸入性皮质类固醇治疗哮喘的机制

development of mast cells, inducing eosinophil apoptosis, and inhibiting pro-inflammatory mediators and cytokines [Shepherd et al., 2002], [Wenzel, 1998], [Ponda & Coscia, 2016], [Hossny et al., 2016], [Anderson & Bardana, 1997], [Bacci et al., 2006].

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Reference preview

Asthma: A Brief Overview

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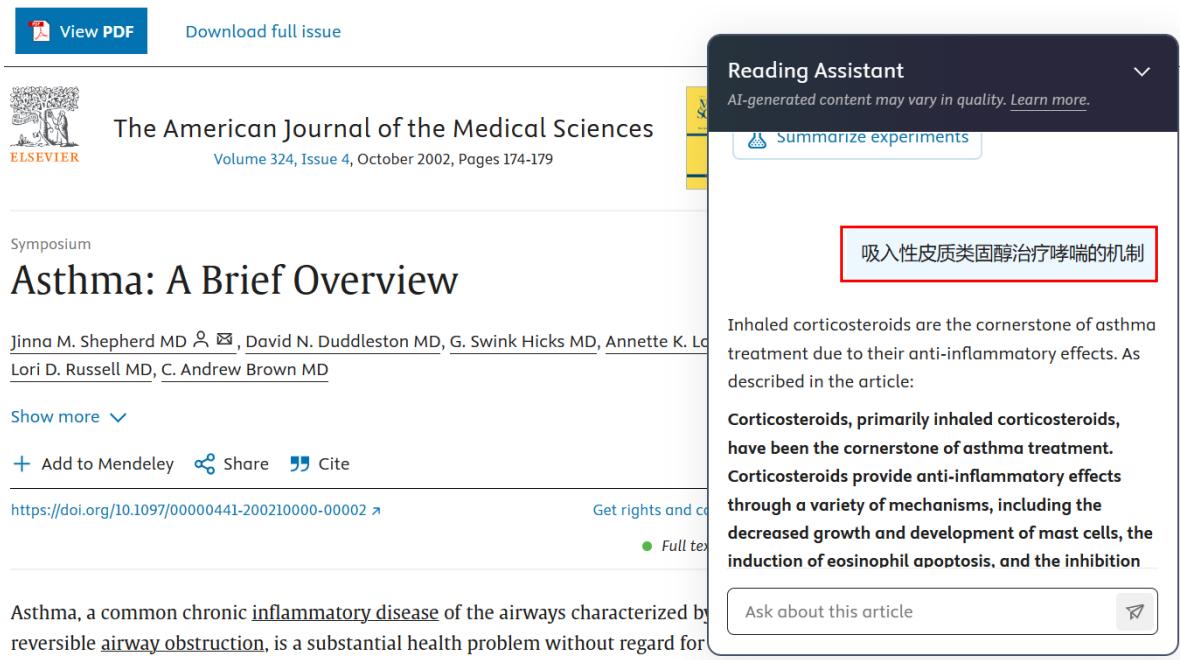
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Answer found in section: "Pharmacotherapy"

Corticosteroids, primarily inhaled corticosteroids, have been the cornerstone of asthma treatment. Corticosteroids provide anti-inflammatory effects through a variety of mechanisms, including the decreased growth and development of mast cells, the induction of eosinophil apoptosis, and the inhibition of numerous proinflammatory mediators and cytokines. They predominantly prevent the late-phase response to allergen challenge.¹⁶

图 6

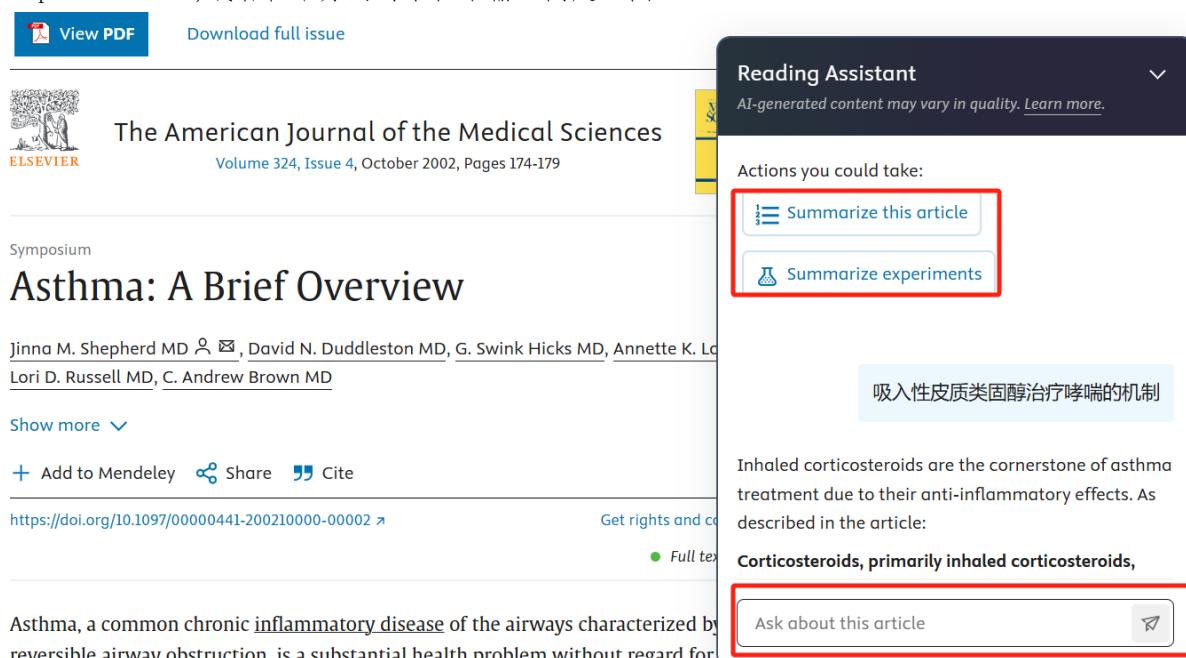
- 1) 通过该方式进入“阅读助手”，系统会将用户之前问的问题自动在该文章内再问一次，并基于该篇文章内容进行回答该问题（图 7）。



The screenshot shows a ScienceDirect article page for 'Asthma: A Brief Overview' from The American Journal of the Medical Sciences, Volume 324, Issue 4, October 2002, Pages 174-179. The article is a symposium. The sidebar on the right is titled 'Reading Assistant' and contains AI-generated content. A red box highlights the text: '吸入性皮质类固醇治疗哮喘的机制' (Mechanism of action of inhaled corticosteroids in asthma). The text below it describes how inhaled corticosteroids are the cornerstone of asthma treatment due to their anti-inflammatory effects, mentioning mechanisms like decreased growth and development of mast cells, induction of eosinophil apoptosis, and inhibition of various pathways.

图 7

- 2) 同时，用户可以在“阅读助手”功能框内选择“Summarize this article”“Summarize experiments”，或者在下方的对话框中输入问题（图 8）。



The screenshot shows the same ScienceDirect article page as in Figure 7. The 'Reading Assistant' sidebar is open, showing 'Actions you could take:' with two buttons: 'Summarize this article' and 'Summarize experiments'. The 'Summarize experiments' button is highlighted with a red box. Below the buttons, a red box highlights the 'Ask about this article' input field. The sidebar also contains the same summary text about inhaled corticosteroids as in Figure 7.

图 8

2. 通过 ScienceDirect 在线全文页面的快捷按钮访问：在线打开任意一篇 ScienceDirect 全文，在页面右下角会有“阅读助手”按钮，点击按钮即可唤出“阅读助手”（图 9）。

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Clinical Investigation

Evaluation of the efficacy of Omalizumab as re-treatment in patients with severe asthma

Müge Gençer Tuluy M.D.^{1†} , Yavuz Havlucu M.D.^{2 ‡} , Deniz Kızılırmak M.D.^{2 ††} ,
Ayşe Arzu Yorgancioğlu M.D.^{2 †††} 

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图 9

三、 实验对比工具——实验总结表格

比较和整合文献这一工作非常耗时。ScienceDirect AI 独特的“实验对比”工具能够将一组文章汇总，并生成实验对比表格，分解每项实验，提取包括目标、方法、结果在内的关键点。

视频简介: <https://weixin.qq.com/sph/AcPqmejZJ> (微信链接)

访问方式:

1. 通过“问答助手”提问结果界面进入: 在提问结果页面最下方, 有“Compare experiments”按钮, 点击可以进入实验结果对比页面。通过该方式进入, 对比的研究(文章)来自“问答助手”推荐的参考文献(图 10)。

点击右上角的“Export table”可以将实验对比内容导出到 Excel 文件(图 11)。



▼ References from summary (6)

▼ Related insights (4)

Other actions:

Compare experiments ↗

Ask another question:

↳ 吸入性皮质类固醇如何调节免疫反应以缓解哮喘症状 ↗

↳ 吸入性皮质类固醇对气道炎症的影响机制是什么 ↗

↳ 吸入性皮质类固醇在哮喘治疗中的作用与机制分析 ↗

图 10

ARTICLE	EXPERIMENT / STUDY	GOAL	MATERIALS	METHODS	RESULTS
Article Asthma: A Brief Overview ↗ Jenna M. Shepherd (MD), David N. Duddleston (MD), ... C. Andrew Brown (MD) <i>The American Journal of the Medical Sciences</i> • Volume 324 • 2002 Export data (CSV)	Epidemiological study	To study the epidemiology of asthma, including its prevalence, morbidity, and mortality.	General population data on asthma prevalence, morbidity, and mortality in the United States and other countries.	Analyzed epidemiological data on asthma from various sources, including national surveys and health care utilization records.	Asthma affects approximately 10% of the population, with increasing prevalence over time. Asthma is a significant cause of morbidity, accounting for 1.5 million days of restricted activity, 1.5 million emergency department visits, and 500,000 hospitalizations annually in the US. Asthma mortality rates increased during the 1970s and 1980s but have since stabilized at a level higher than in the 1970s.
	Review of diagnostic criteria	To define the key features used to diagnose asthma.	Criteria for asthma diagnosis as defined by the National Institutes of Health, including characteristic symptoms, reversible airflow obstruction, bronchial hyperresponsiveness, and chronic airway inflammation.	Summarized the diagnostic criteria for asthma based on clinical symptoms, lung function testing, and other diagnostic tests to rule out alternative conditions.	Asthma is diagnosed based on a combination of factors, including recurrent symptoms of wheezing, cough, and shortness of breath; evidence of reversible airflow obstruction; and presence of chronic airway inflammation.

图 11

2. 通过 ScienceDirect 关键词检索界面选择所需文献进行实验对比。在检索结果页面勾选需要对比的文献，点击页面上方的“Compare experiments”链接，即可进入实验对比页面（图 12）。

Find articles with these terms



[Advanced search](#)

Ask ScienceDirect AI

Ask questions about "asthma treatment" and get answers with AI summaries from relevant research

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Research article

¹

[Evaluation of the efficacy of Omalizumab as re-treatment in patients with severe asthma](#)

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Research article

²

[Poor Agreement Among Asthma Specialists on the Choice and Timing of Initiation of a Biologic](#)

图 12