

欢迎访问 Frontiers 期刊数据库

<http://journal.hep.com.cn/>

基础科学



生命科学



工程技术



80-744



80-966



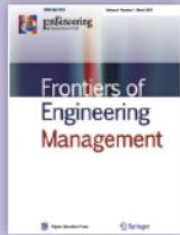
80-969



80-970



80-972



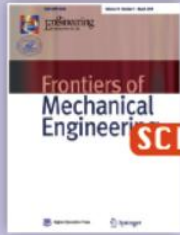
80-905



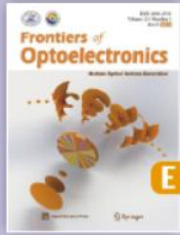
80-973



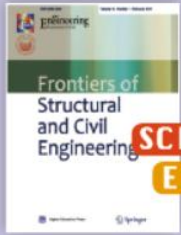
80-974



80-975



80-976



80-968



80-985

人文社科



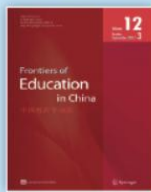
80-903



80-977



80-978



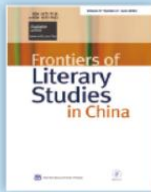
80-979



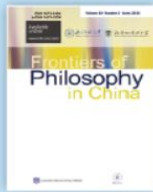
80-980



80-981



80-982



80-983

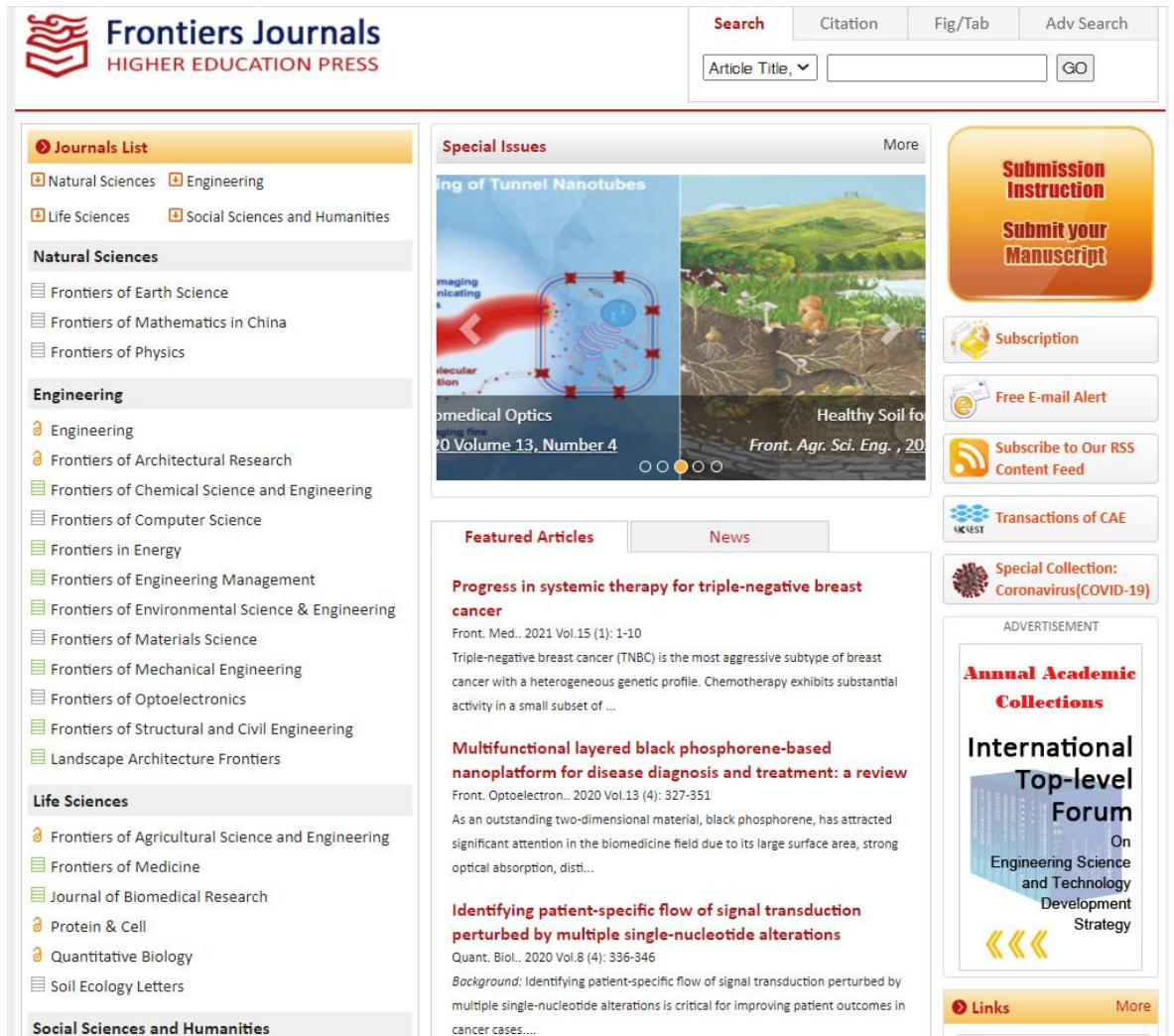
由教育部主管、高等教育出版社出版的前沿（Frontiers）系列英文期刊于 2006 年正式创刊，是目前国内覆盖学科最广的系列英文学术期刊。刊物以网络版和印刷版形式出版。

- ◇ SCI、AHCI、Ei、MEDLINE 等国际权威检索系统收录
- ◇ 在线优先出版，全球发行
- ◇ 面向全球的标准化、国际化在线访问服务

- Frontiers 系列期刊是否被国际权威检索系统收录?
 - 13 种被 SCI 收录; 6 种被 Ei 收录; 2 种被 MEDLINE 收录
- Frontiers 系列期刊的办刊特色是什么?
 - 国内外知名学者担任主编和编委; 遵循严格的同行评议制度; 文章快速发表
- Frontiers 系列期刊上的文章能被全球学者看到吗?
 - 与国际知名出版社合作全球发行, 覆盖国际学术研究主流人群

1. 登陆系统

在浏览器地址栏中输入 <http://journal.hep.com.cn/>，进入中国学术前沿期刊网（即 Frontiers Journals）首页，校内用户可直接访问全文。



The screenshot shows the Frontiers Journals website homepage. At the top, there is a search bar with options for 'Search', 'Citation', 'Fig/Tab', and 'Adv Search'. Below the search bar is a 'Journals List' section with categories: Natural Sciences, Engineering, Life Sciences, and Social Sciences and Humanities. Each category lists several journals, some marked with an 'OA' icon. To the right, there are 'Special Issues' featured with images and titles like 'Imaging of Tunnel Nanotubes' and 'Healthy Soil for...'. Further right are buttons for 'Submission Instruction', 'Submit your Manuscript', 'Subscription', 'Free E-mail Alert', 'Subscribe to Our RSS Content Feed', 'Transactions of CAE', and 'Special Collection: Coronavirus(COVID-19)'. At the bottom right, there is an advertisement for 'Annual Academic Collections' and 'International Top-level Forum'.


2. 浏览

2.1 Frontier 系列期刊群

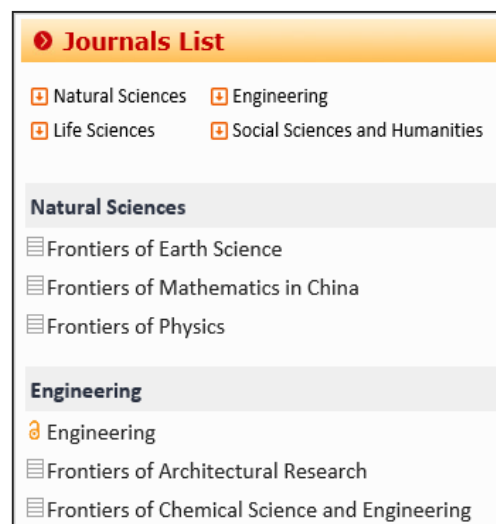
2.1.1 平台首页

(1) Journals list:



在平台首页左侧，按期刊类别列出平台下的所有期刊，并标明每个期刊是否开放获取。

其中， 标记的期刊为 OA 期刊。

另外，系统将根据用户访问时的 IP，自动进行全文阅读的权限判断，并在期刊前的图标进行



This is a detailed view of the 'Journals List' section from the screenshot. It shows a list of journals grouped by category. Under 'Natural Sciences', there are 'Frontiers of Earth Science', 'Frontiers of Mathematics in China', and 'Frontiers of Physics'. Under 'Engineering', there is 'Engineering' (marked with an OA icon), 'Frontiers of Architectural Research', and 'Frontiers of Chemical Science and Engineering'. The 'Life Sciences' and 'Social Sciences and Humanities' categories are also listed but not expanded in this view.

标记,例如:  表示用户在此 IP 下只能阅读摘要;  表示用户在此 IP 下可以阅读全文。

点击任意期刊名称,可进入该刊主页。

(2) Journals:

该界面以比较详细的信息列出平台下的所有期刊。提供期刊的简要介绍,并提供到期刊首页、投稿、当期目录、过刊浏览的快速链接。

(3) Subscription

该页面提供 Frontier 系列期刊的订阅信息。

(4) Open access

该页面提供了 Frontier 系列期刊的 OA 政策和执行 OA 政策的期刊列表。

(5) About us

该界面介绍了 Frontier 系列期刊的基本情况。

2.1.2 单个期刊网站

点击平台首页上任意的期刊列表,可直接进入该期刊的网站。单个期刊网站的内容主要包括:

(1) About the journal (期刊简介)

该栏目下提供了期刊的介绍性内容,如

Aims & Scope: 介绍该刊的定位及出版范围。

Description: 介绍了期刊的历史、栏目及其他政策性内容。

Editorial Board: 提供了期刊编委会名单

Abstracted / Indexing: 介绍了期刊被文摘索引数据库收录的情况

Contact us: 提供了期刊编辑的联系方式。

» About the Journal

» Aims & Scope

» Description

» Editorial Board

» Abstracting / Indexing

» Contact us

(2) Authors (作者服务中心)

“作者服务中心”栏目提供了作者投稿、查稿和论文发表所必须了解的所有信息,包括:

在线投稿网址 (Online Submission)

作者投稿指南 (Guidelines for Authors)

» Authors

» Online Submission

» Guidelines for Authors

» Download Templates

» Author FAQs

论文模板下载 (Download Templates)

作者在投稿和论文发表过程中，可能遇到的问题的解答等。

注：每个期刊可能根据自己的需要，栏目设置可能有所区别。

(3) Reviewers (审稿人服务中心)

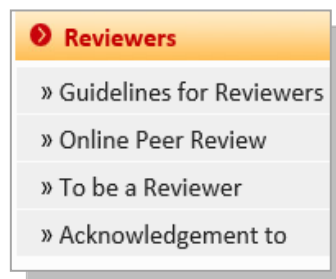
“审稿人服务中心”栏目主要提供了稿件在同行评议中，可能需要的各种信息，包括：

Guidelines for Reviewers: 审稿指南

Online Peer Review: 在线评审网址

To be a Reviewer: 自我推荐为审稿人

Acknowledgement to: 编辑部对审稿人的感谢



2.2 动态性内容

2.2.1 News

网站动态性内容主要包括各个平台上的 News 板块。

主要是提供系列期刊及行业的一些动态新闻，例如科研动态、会议通知、征稿通知、撤稿通知、对审稿人的致谢等。

系统将自动记录每条信息被阅读的次数。

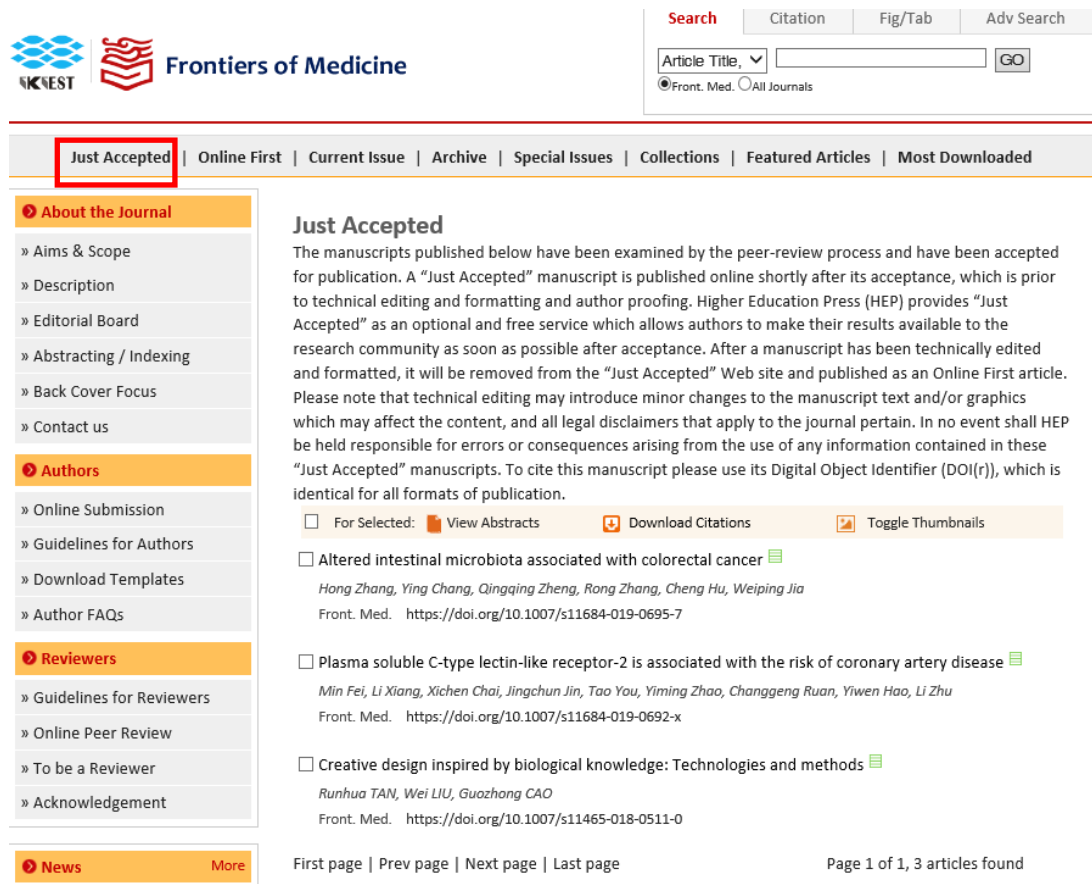
2.2.2 Featured Articles

Frontier 期刊平台首页上展示的 Feature Article，是特色文章或主编推荐的文章，是刊物文章的精华，是系统自动从各个刊物的 Feature article 中获取最新的一篇，然后在首页显示。

2.3 文章分类浏览

中国学术前沿期刊网采用 Just Accepted, Online First, Issue 三种版本更替上网机制，在保证论文学术质量的前提下实现即时发布、快速传播。进入到任意一个期刊页面后，上端皆列有“Just Accepted”、“Online First”、“Current Issue”、“Archive”等多个版本的文章，供及时阅览。

2.3.1 Just Accepted (最新录用文章)



Frontiers of Medicine

Search Citation Fig/Tab Adv Search

Article Title, GO

Front. Med. All Journals

Just Accepted | Online First | Current Issue | Archive | Special Issues | Collections | Featured Articles | Most Downloaded

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Just Accepted

The manuscripts published below have been examined by the peer-review process and have been accepted for publication. A "Just Accepted" manuscript is published online shortly after its acceptance, which is prior to technical editing and formatting and author proofing. Higher Education Press (HEP) provides "Just Accepted" as an optional and free service which allows authors to make their results available to the research community as soon as possible after acceptance. After a manuscript has been technically edited and formatted, it will be removed from the "Just Accepted" Web site and published as an Online First article. Please note that technical editing may introduce minor changes to the manuscript text and/or graphics which may affect the content, and all legal disclaimers that apply to the journal pertain. In no event shall HEP be held responsible for errors or consequences arising from the use of any information contained in these "Just Accepted" manuscripts. To cite this manuscript please use its Digital Object Identifier (DOI(r)), which is identical for all formats of publication.


For Selected: View Abstracts Download Citations Toggle Thumbnails

Altered intestinal microbiota associated with colorectal cancer 

Hong Zhang, Ying Chang, Qingqing Zheng, Rong Zhang, Cheng Hu, Weiping Jia
Front. Med. <https://doi.org/10.1007/s11684-019-0695-7>

Plasma soluble C-type lectin-like receptor-2 is associated with the risk of coronary artery disease 

Min Fei, Li Xiang, Xichen Chai, Jingchun Jin, Tao You, Yiming Zhao, Changgeng Ruan, Yiwen Hao, Li Zhu
Front. Med. <https://doi.org/10.1007/s11684-019-0692-x>

Creative design inspired by biological knowledge: Technologies and methods 

Runhua TAN, Wei LIU, Guozhong CAO
Front. Med. <https://doi.org/10.1007/s11465-018-0511-0>

First page | Prev page | Next page | Last page

Page 1 of 1, 3 articles found

st accepted 是已经录用，并且分配了 doi，但尚未排版，也没有年卷期页码的文章。

2.3.2 Online First (在线优先发表文章)

Online first (在线优先发表文章) 是指还没有年卷期和页码的文章，但文章内容都已经经过编辑加工，版面也已经经过专业编排。它的全文 (PDF 或 HTML) 与正式发表的文章的唯一区别就是没有页码。

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 - » Frontiers of Medicine Accepted For Indexing By Thomson Reuters 2016-02-18

Online First

The manuscripts published below will continue to be available from this page until they are assigned to an issue.

For Selected:

NES1/KLK10 and hNIS gene therapy enhanced iodine-131 internal radiation in PC3 proliferation inhibition

Jiajia Hu, Wenbin Shen, Qian Qu, Xiaochun Fei, Ying Miao, Xinyun Huang, Jiajun Liu, Yingli Wu, Biao Li

Front. Med. <https://doi.org/10.1007/s11684-018-0643-y>

Compound C620-0696, a new potent inhibitor targeting BPTF, the chromatin-remodeling factor in non-small-cell lung cancer

Jiahui Xu, Qianqian Wang, Elaine Lai Han Leung, Ying Li, Xingxing Fan, Qibiao Wu, Xiaojun Yao, Liang Liu

Front. Med. <https://doi.org/10.1007/s11684-019-0694-8>

Deciphering the pharmacological mechanism of Guan-Jie-Kang in treating rat adjuvant-induced arthritis using omics analysis

Hudan Pan, Yanfang Zheng, Zhongqiu Liu, Zhongwen Yuan, Rutong Ren, Hua Zhou, Ying Xie, Liang Liu

Front. Med. <https://doi.org/10.1007/s11684-018-0676-2>

Glycosylation of dentin matrix protein 1 is critical for fracture healing via promoting chondrogenesis

Hui Xue, Dike Tao, Yuteng Weng, Qiqi Fan, Shuang Zhou, Ruilin Zhang, Han Zhang, Rui Yue, Xiaogang Wang, Zuelin Wang, Yao Sun

Front. Med. <https://doi.org/10.1007/s11684-019-0693-9>

在线优先发表的文章列表的排序，一般按文章被接受日期的倒序。

(1) 合并摘要

在文章列表中，选中题目前面的复选框，可以多选（或点击 For Selected: 中的复选框来全选），然后点击列表上方的 ，可以把选中的所有文章，在一个页面上展示出来。也可以把这些文章导出到诸如 Endnote、Refworks 这样的文献管理器中，也可以把此页面的地址直接发送邮件给同事或朋友。

Export selected articles:
EndNote (- EndNote format) | **Reference Manager** (- Ris format) | **ProCite** (- Ris format) | **BibTeX** (- BibTeX format) | **RefWorks** (- RefWorks format)

You have selected 2 articles

Extracting terms from clinical records of traditional Chinese medicine
 Cungen Cao, Meng Sun, Shi Wang
 Front. Med. DOI: 10.1007/s11684-014-0361-z

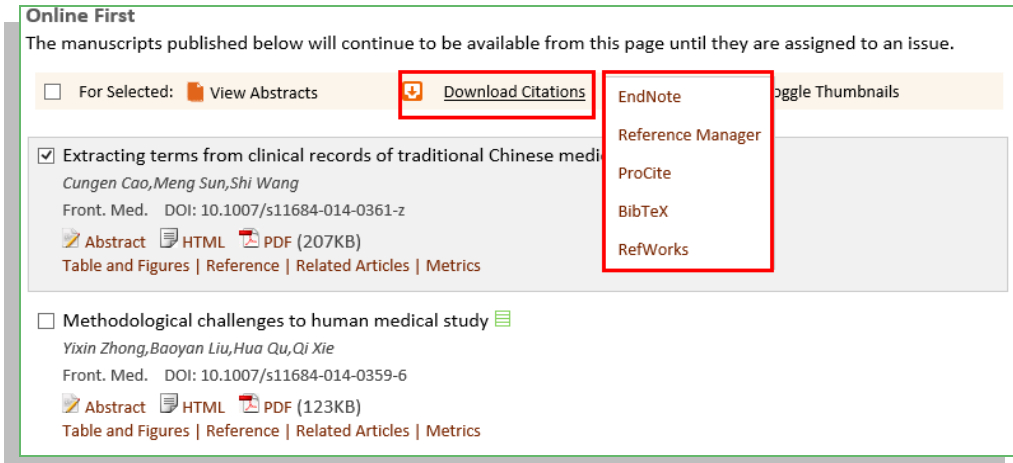
Methodological challenges to human medical study
 Yixin Zhong, Baoyan Liu, Hua Qu, Qi Xie
 Front. Med. DOI: 10.1007/s11684-014-0359-6

Extracting terms from clinical records of traditional Chinese medicine
 Cungen Cao, Meng Sun, Shi Wang
 Front. Med. DOI: 10.1007/s11684-014-0361-z
 Health records of traditional Chinese medicine contain valuable clinical information which can be used for improvement of disease treatment and for medical research. In this paper, we present a practical iterative extraction method for extracting terms from the records. The method is based on a set of extraction rules, the Mesh, and the likelihood ratio technique, and achieved a precision rate of 88.18% and a recall rate of 94.21%.

Methodological challenges to human medical study
 Yixin Zhong, Baoyan Liu, Hua Qu, Qi Xie
 Front. Med. DOI: 10.1007/s11684-014-0359-6
 With the transformation of modern medicinal pattern, medical studies are confronted with methodological challenges. By analyzing two methodological questions in the study of physical medicine system and information system, the article


(2) 导出文献管理器

在 Online First（在线优先发表）页面，可以把选中的多篇文章直接导出到参考文献管理器。



各种引用管理器的数据格式参见相关网页。

(3) 显示文章图片

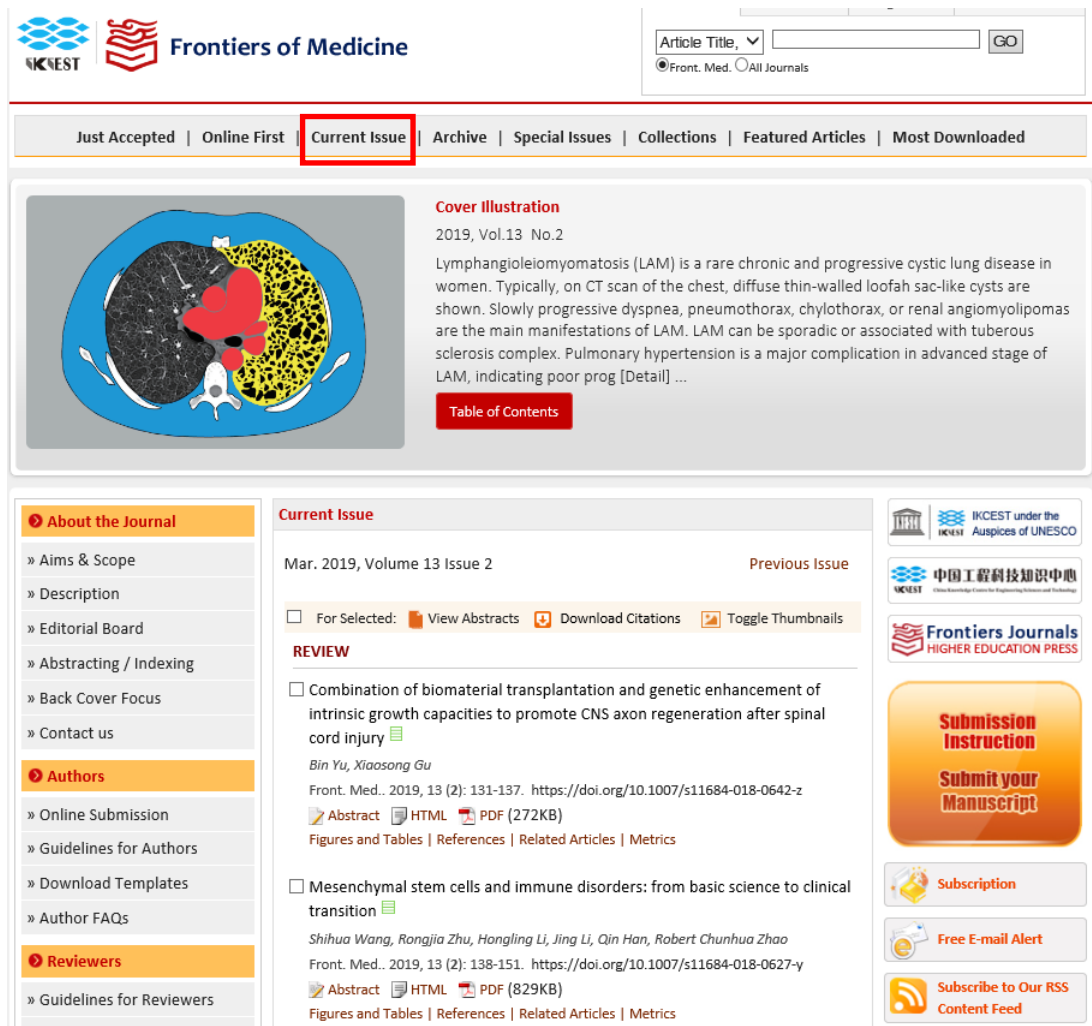
点击  **Toggle Thumbnails** 可以在当前页面显示每篇文章的图片（如果有的话），再次点击，会隐藏图片。

2.3.3 Current Issue（当期目录）

当期目录一般指与纸本期刊同步的期。

(1) 对于每期封面变换的期刊，一般会提供一个 Cover illustrator 或 Cover story 的板块。

但如果该刊每期封面相同，则没有此板块。



(2) 文章排序：在当期目录中的文章顺序，一般按起始页码进行排序，同时，把同一个目录下的文章，按起始页，排在一起。

(3) 列表中，题目后面的图标表示当前用户 IP 访问全文的权限。

(4) 当期目录中的文章列表与在线优先发表的一样，也可以提供摘要合并、导出文献管理器、显示图标功能。

2.3.4 Archive（过刊浏览）

过刊浏览是提供该刊所有已经上网的刊期列表，但不含当期目录。

列表式：

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2019

2019 Vol.13 No.1 pp.1-130 2019-03-12

2018

2018 Vol.12 No.6 pp.601-734 2018-12-03

2018 Vol.12 No.5 pp.497-599 2018-09-29

2018 Vol.12 No.4 pp.361-495 2018-09-03

2018 Vol.12 No.3 pp.239-359 2018-05-04

2018 Vol.12 No.2 pp.123-238 2018-04-02

2018 Vol.12 No.1 pp.1-121 2018-02-06

2017

2017 Vol.11 No.4 pp.449-594 2017-12-04

2017 Vol.11 No.3 pp.307-448 2017-08-29

2017 Vol.11 No.2 pp.161-305 2017-06-01

2017 Vol.11 No.1 pp.1-159 2017-03-20

2016

2016 Vol.10 No.4 pp.377-530 2016-12-01

2016 Vol.10 No.3 pp.237-376 2016-08-30

2016 Vol.10 No.2 pp.111-235 2016-05-27

2016 Vol.10 No.1 pp.1-110 2016-03-31

2.3.5 Special Issues (专刊)

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Special Issues

Collection: Molecular Classification and Individualized Treatment of Major Diseases
Front. Med., Jun. 2013, Volume 7, Number 2.

Collection: Metabolic Diseases
Front. Med., Mar. 2013, Volume 7, Number 1.

Collection: Traditional Chinese Medicine
Front. Med., Jun. 2011, Volume 5, Number 2.

Collection: Regenerative Medicine
Front. Med., Mar. 2011, Volume 5, Number 1.

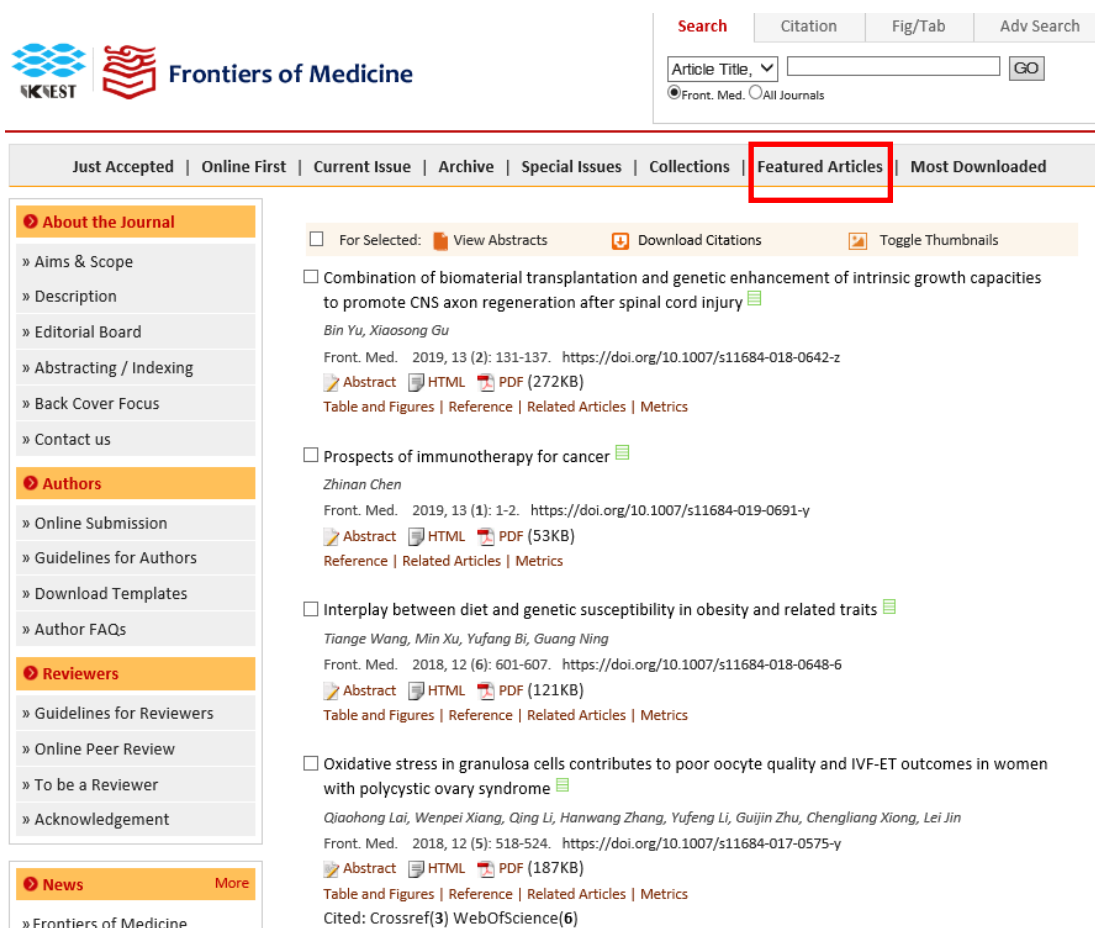
First page | Prev page | Next page | Last page

Page 1 of 1, 4 Collections found

Special issue 一般是指专刊或专题,但都是以期为单位。每期点开后的页面就是该期的目录。

2.3.6 Featured Articles (特色文章)

Feature Articles 一般是特色文章或主编推荐文章,是刊物文章的精华,有时也叫 Highlight Articles。如果出现在首页,或当期目录页面,一般是本期中的特色文章。如:



The screenshot shows the Frontiers of Medicine website interface. At the top right, there is a search bar with options for 'Citation', 'Fig/Tab', and 'Adv Search'. Below the search bar, there are navigation tabs: 'Just Accepted', 'Online First', 'Current Issue', 'Archive', 'Special Issues', 'Collections', 'Featured Articles' (highlighted with a red box), and 'Most Downloaded'. On the left side, there is a sidebar menu with categories like 'About the Journal', 'Authors', 'Reviewers', and 'News'. The main content area displays a list of featured articles, each with a checkbox, a title, author information, and publication details. The first article is 'Combination of biomaterial transplantation and genetic enhancement of intrinsic growth capacities to promote CNS axon regeneration after spinal cord injury' by Bin Yu and Xiaosong Gu. Other articles include 'Prospects of immunotherapy for cancer' by Zhinan Chen, 'Interplay between diet and genetic susceptibility in obesity and related traits' by Tiange Wang et al., and 'Oxidative stress in granulosa cells contributes to poor oocyte quality and IVF-ET outcomes in women with polycystic ovary syndrome' by Qiaohong Lai et al.

2.3.7 Most Downloaded (下载排行)

下载排行是指在本平台上,根据文章全文下载数进行排行,全文下载数是 PDF 全文和 HTML 全文的下载数总和,也包括全文各个版本(最新录用、在线优先发表和正式发表)的下载数总和。这些排行由系统自动计算生成。

本平台提供各种角度的下载排行,包括:

Just Accepted | Online First | Current Issue | Archive | Special Issues | Collections | Featured Articles | **Most Downloaded**

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30 Most Downloaded Articles


[Published in last 1 year](#) | [In last 2 years](#) | [In last 3 years](#) | [All](#) | [Most Downloaded in Recent Month](#) | [Most Downloaded in Recent Year](#)

All

For Selected: View Abstracts Download Citations Toggle Thumbnails

Non-invasive continuous blood pressure monitoring: a review of current applications 📄

Elena Chung, Guo Chen, Brenton Alexander, Maxime Cannesson
 Front Med 2013, 7 (1): 91-101. <https://doi.org/10.1007/s11684-013-0239-5>
[Abstract](#) [HTML](#) [PDF \(496KB\)](#)
[Table and Figures](#) | [Reference](#) | [Related Articles](#) | [Metrics](#)



Cited: Crossref(46) WebOfScience(44)

Insulin resistance and the metabolism of branched-chain amino acids 📄

Jingyi Lu, Guoxiang Xie, Weiping Jia, Wei Jia
 Front Med 2013, 7 (1): 53-59. <https://doi.org/10.1007/s11684-013-0255-5>
[Abstract](#) [HTML](#) [PDF \(196KB\)](#)
[Table and Figures](#) | [Reference](#) | [Related Articles](#) | [Metrics](#)

Published in last 1 year: 指一年内发表的文章的下载排行。

In last 2 years: 指2年内发表的文章的下载排行。

In last 3 years: 指3年内发表的文章的下载排行。

All: 指本刊全部发表的文章的下载排行。

Most Downloaded in Recent Month: 指最近一个月，读者下载的文章排行。

Most Downloaded in Recent Year: 指最近一年内，读者下载的文章排行。

每种排行榜中的文章数量，仅显示前30篇。

2.3.8 Most Cited (引用排行)

文章被引排行是根据文章的被引次数进行自动计算生成。在本平台中，被引次数有几种来源：来自 Crossref、来自 Web of science，其中，有与 Springer 合作的期刊，被引次数来自 Springer 网站，但 Springer 网站上的被引次数也是来自 Crossref。对没有与 Springer 合作的期刊，管理员不定期从 Web of science 获取本刊的被引次数列表，然后导入到系统。

因此，只有与 Springer 合作的期刊，其被引次数可能是实时的，其它期刊，被引次数可

能滞后。

3. 论文检索

本系统提供文章检索服务，并支持跨刊检索。

3.1 Quick Search（快速检索）

快速检索提供对特定字段的模糊检索功能，包括：

Articles Title, Keywords, Abstract: 在文章题目、关键词和摘要中同时进行模糊检索。

Article Title: 仅在文章题目中进行模糊检索。

Keywords: 仅在关键词中进行模糊检索。

Authors: 仅在作者中进行模糊检索。

Abstract: 仅在摘要中进行模糊检索。

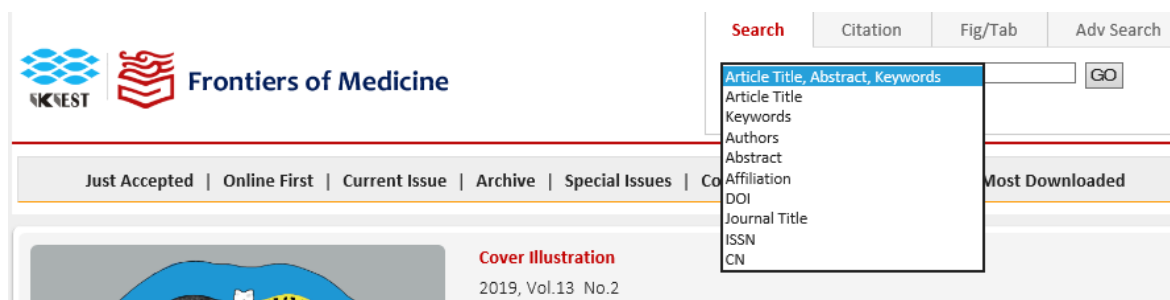
Affiliation: 仅在作者单位中进行模糊检索。

DOI: 仅在 DOI 中进行模糊检索。

Journal Title: 仅在期刊名称全称中进行模糊检索。

ISSN: 仅在 ISSN 中进行模糊检索。

CN: 仅在期刊的 CN 号中进行模糊检索。



快速检索的检索文章范围，可以只在本刊进行检索，也可以在全部的 Frontier 系列期刊中进行检索。

3.2 快速检索的检索结果

本系统提供了检索结果的聚类分析和二次检索功能。

Search for

((liver[ALL]) AND 32[Journal])

Journals

Frontiers of Medicine(130)

Article Types

RESEARCH ARTICLE(41)

REVIEW(37)

Research articles(12)

CASE REPORT(5)

COMMENTARY(2)

others

Publication Years

2019(4)

2018(12)

2017(5)

2016(11)

2015(12)

others

Keywords

hepatocellular carcinoma(10)

liver transplantation(6)

prognosis(4)

metastasis(4)

pregnancy(4)

others

Search within results

For Selected:

Current advances for bone regeneration based on tissue engineering strategies

Rui Shi, Yuelong Huang, Chi Ma, Chengai Wu, Wei Tian

Front. Med. 2019, 13 (2): 160-188. <https://doi.org/10.1007/s11684-018-0629-9>

Middle East respiratory syndrome coronavirus in pediatrics: a report of seven cases from Saudi Arabia

Sarah H. Alfaraj, Jaffar A. Al-Tawfiq, Talal A. Altuwaijri, Ziad A. Memish

Front. Med. 2019, 13 (1): 126-130. <https://doi.org/10.1007/s11684-017-0603-y>

Cited: Crossref(1) WebOfScience(2)

Rdh13 deficiency weakens carbon tetrachloride-induced liver injury by regulating Spot14 and Cyp2e1 expression levels

Xiaofang Cui, Benting Ma, Yan Wang, Yan Chen, Chunling Shen, Ying Kuang, Jian Fei, Lungun Lu, Zhugang Wang

Front. Med. 2019, 13 (1): 104-111. <https://doi.org/10.1007/s11684-017-0568-x>

High-affinity T cell receptors redirect cytokine-activated T cells (CAT) to kill cancer cells

Synat Kang, Yanyan Li, Yifeng Bao, Yi Li

Front. Med. 2019, 13 (1): 69-82. <https://doi.org/10.1007/s11684-018-0677-1>

Xiao Ke Qing improves glycometabolism and ameliorates insulin resistance by regulating the PI3K/Akt pathway in KKAy mice

Xiaoqing Li, Xinxin Li, Genbei Wang, Yan Xu, Yuanyuan Wang, Ruijia Hao, Xiaohui Ma

Front. Med. 2018, 12 (6): 688-696. <https://doi.org/10.1007/s11684-018-0662-8>

- (1) 在以上界面的左边，记录了本次检索行为。
 - (2) 提供了对检索结果的文章分类，例如 Review 或 Research article 或 Case report。但此功能依赖于后台数据的维护。
 - (3) 提供了检索结果在各个期刊中的分布。点击相应的期刊，将自动从检索结果中，筛选出该期刊的文章。
 - (4) 提供了检索结果中的文章的发表年度分布。点击相应的年，将自动从检索结果中，筛选出该年度发表的文章。
 - (5) 提供了检索结果中的文章的关键词分布。点击相应的关键词，将自动从检索结果中，筛选出同时还包含该关键词的文章。
- 另外，点击“others”可以不断增加显示相关的关键词数量。
- (6) 二次检索

3.3 Citation Search (引用检索)

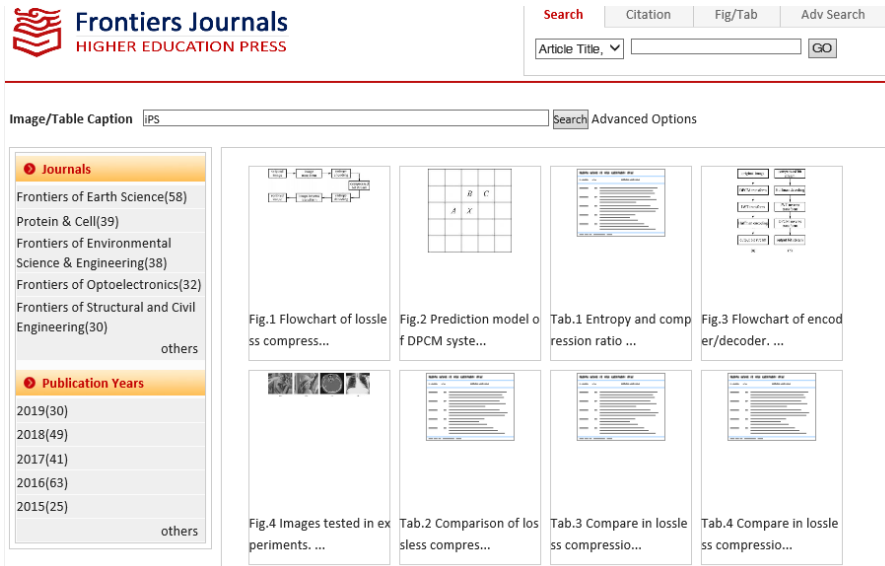
引用检索的目的在于给读者提供了一个精确检索的功能，用于核对引文信息。



3.4 Figure/Table Search (图表检索和展示)

本平台提供了对文章图表库的检索服务。

- (1) 这些图表库是系统自动从全文 XML 文件中提取出来。检索服务是对图题、标题内容进行检索，不包括对图中的文字和表体、标注中的内容进行检索。

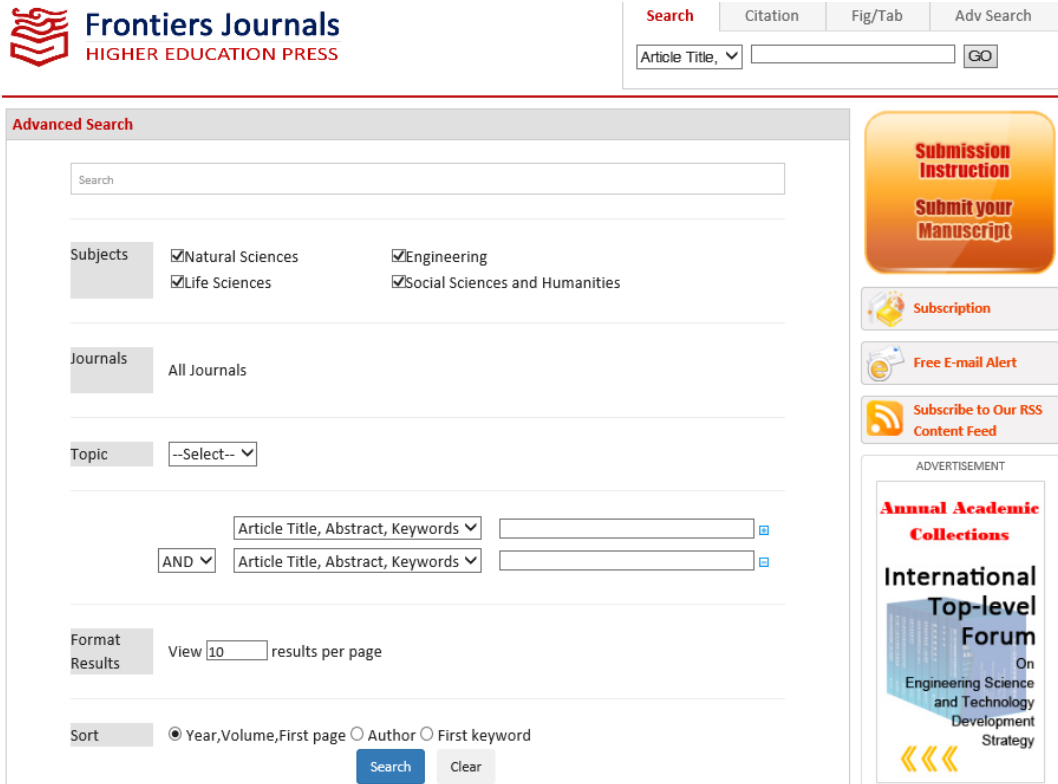


- (2) 系统支持对检索结果的分析，类似快速检索结果。

(3) 点击检索结果中的小图，可以显示该图的详细信息。包括来源文章的信息、图题、来源文章的其他图片、表格，以及“View image in article”（即在全文中查看本图）。

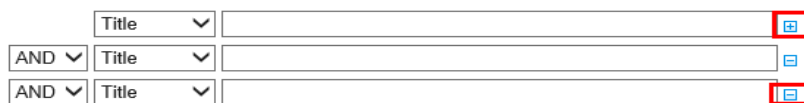
(4) 系统还提供了对本图的下载功能 View option: Download（原图文件压缩包）、Download as Powerpoint（以 Powerpoint 格式下载）。

3.5 Advanced Search (高级检索)



高级检索提供了一个跨刊、多条件的组合模糊检索功能。

- (1) 可以选择学科范围,选择 Natural Sciences、Engineering、Life Sciences、Social Sciences and Humanities, 将可以在特定的期刊范围内进行检索。每个学科范围所包括的期刊是由管理员在后台指定的,不是系统自动对应。
- (2) 检索字段包括: Title (文章题目)、 Author (文章作者)、 Institution (作者单位)、 Keyword (文章关键词)、 Abstract (文章摘要)、 DOI 等。系统默认的检索条件是 2



个,但可以点击“+”以增加检索条件,也可以点“-”来减少检索条件。

- (3) 检索结果: 系统将对检索结果进行聚类分析,功能同“快速检索”的结果聚类。不再赘述。

4 文章服务

4.1 Abstract（文章摘要页面展示）

文章摘要页面是展示文章核心内容，吸引和引导读者去阅读全文的页面，也是文章 doi 解析后页面，是一篇文章在国际学术互联体系中的一个对应节点，因此非常重要。本平台的摘要页面有以下功能或特点：



The screenshot shows the article's abstract page. At the top, there are navigation links: Just Accepted, Online First, Current Issue, Archive, Special Issues, Collections, Featured Articles, and Most Downloaded. The article title is "Mutation profiling of 16 candidate genes in *de novo* acute myeloid leukemia patients" by Yang Zhang, Fang Wang, Xue Chen, Wenjing Liu, Jiancheng Fang, Mingyu Wang, Wen Teng, Panxiang Cao, and Hongxing Liu. The abstract text describes a retrospective analysis of 259 AML patients, identifying 16 candidate genes and their mutation profiles. The page also includes a sidebar with service options like "E-mail this article" and "Articles by authors", and a list of authors.

- (1) 文章摘要页面提供了本刊所有文章的导航。可以从该页面直接链接到本期、本年和本刊的首页。
- (2) 本页面提供了与本文相关的所有核心内容，及核心元数据。包括作者信息、不同作者对本文的贡献说明、本文所得到的基金资助信息、图表信息（可以点开小图看大图）、参考文献信息及链接、与本文相关的文章，以及本文被读者使用情况的记录和分析。
- (3) 本页面还是读者查找其它相关文献（如作者相关、关键词相关）的途径。
- (4) 本页面还可以实现读者的分享功能，以及为读者使用本文提供的各种便利，例如导出到引用

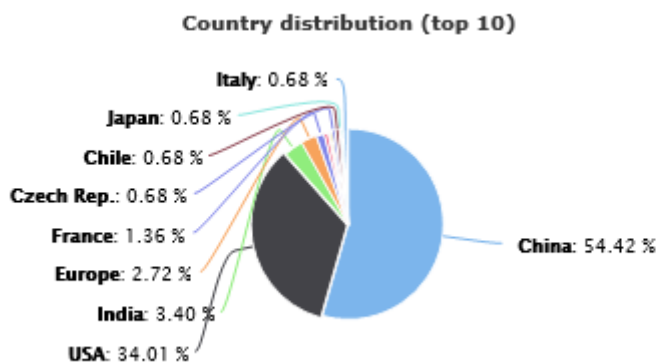
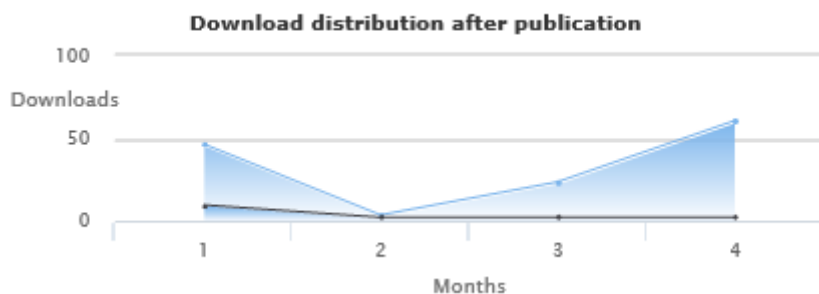
管理器、生成读者引用本文的格式、分享到社交网络。

(5) 文章层面评价 (Article-level-metrics)

Article-level-metrics 是本系统的亮点之一。

a. 提供了全文的下载分布、时间分布、国家分布等。其中，在来源分布中，Others 表示除 google、google scholar 和百度以外的来源，local 表示局域网或特定 IP 的来源；在时间分布图中，时间是从文章的上线时间作为起点；在国家分布中，国家是根据 IP 地址表来识别的，而且只显示前 10 个国家。

Viewed						
Full text 152	HTML			PDF		
	Just accepted	Online first	Issue	Just accepted	Online first	Issue
	0	0	16	0	0	136
	From google Others local Google Scholar					
Times	3	9	139	1		
Rate	2%	6%	91%	1%		



b. 提供了全文下载的来源分布。

c. 提供了文章的被引用统计。其中，在 web of science 中的引用数字，来自后台不定期导入的，不是实时的；Crossref 的数据是系统自动从 springer 网站获取的；另外，也可以直接链接到 Google scholar 平台上，获取本文在 Google scholar 平台上的被引情况。

4.2 Full text (全文展示)

本系统提供了 PDF、HTML 版本（部分期刊只提供 PDF 版本）全文。


Frontiers of Medicine

Article Title,

 Front. Med. All Journals

[Just Accepted](#) | [Online First](#) | [Current Issue](#) | [Archive](#) | [Special Issues](#) | [Collections](#) | [Featured Articles](#) | [Most Downloaded](#)

Frontiers of Medicine, 2019, 13(2): 229-237

doi: 10.1007/s11684-018-0616-1

Mutation profiling of 16 candidate genes in *de novo* acute myeloid leukemia patients

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Abstract

This retrospective analysis aimed to investigate the mutation profile of 16 common mutated genes in *de novo* acute myeloid leukemia (AML) patients. A total of 259 patients who were diagnosed of *de novo* AML were enrolled in this study. Mutation profiling of 16 candidate genes were performed in bone marrow samples by using Sanger sequencing. We identified at least 1 mutation in 199 of the 259 samples (76.8%), and 2 or more mutations in 31.7% of samples. *FLT3-ITD* was the most common mutated gene (16.2%, 42/259), followed by *CEBPA* (15.1%, 39/259), *NRAS* (14.7%, 38/259), and *NPM1* (13.5%, 35/259). Concurrence was observed in 97.1% of the *NPM1* mutated cases and in 29.6% of the double mutated *CEBPA* cases. Distinct patterns of co-occurrence were observed for different hotspot mutations within the *IDH2* gene: *R140* mutations were associated with *NPM1* and/or *FLT3-ITD* mutations, whereas *R172* mutations co-occurred with *DNMT3A* mutations only. Concurrence was also observed in 86.6% of epigenetic regulation genes, most of which co-occurred with *NPM1* mutations. The results showed certain rules in the mutation profiling and concurrence of AML patients, which was related to the function classification of genes. Defining the mutation spectrum and mutation pattern of AML will contribute to the comprehensive assessment of patients and identification of new therapeutic targets.

Keywords: leukemia; myeloid; acute; gene; mutation;

Introduction

Acute myeloid leukemia (AML) is a group of heterogeneous diseases [1]. Along with the progress in molecular biology regarding hematological malignancies and the use of next generation sequencing technology, more molecular genetic markers have been identified. Different mutations can respectively be of unilateral or multivariate clinical significance in clonality, diagnosis, prognosis assessment, and individual therapy [2,3]. Moreover, the newly published 2016 revision to the World Health Organization (WHO) classification of myeloid neoplasms and acute leukemia and lymphoid neoplasms include several molecular genetic markers with well-defined diagnostic and prognostic values, which provide molecular basis for highly precise classification and treatment of diseases, including mutations of *CALR*, *CSF3R*, *SF3B1*, *RUNX1*, and *PCMI-JAK2*. In *de novo* AML, AML with mutated *RUNX1* has been added as a provisional category

Gene sequencing and mutation analysis

A total of 16 common mutated genes, namely, *ASXL1*, *CEBPA*, *DNMT3A*, *ETV6*, *FLT3*, *IDH1*, *IDH2*, *KIT*, *KRAS*, *NRAS*, *NPM1*, *PTPN11*, *PHF6*, *RUNX1*, *TET2*, and *TP53* were detected of mutation hotspot regions that have already been reported in the literature (Supplementary Table S1). Sanger sequencing was performed by using an AB 3500XL sequencer, whose detection sensitivity is approximately 15%–20%; additionally, *FLT3-ITD* and *NPM1* mutations were detected by fragment length analysis by using an AB 3500XL sequencer with a detection sensitivity of approximately 1%–3%. Gene mutation analysis was performed by using Variant Reporter V1.1 software (Life, America). The evaluation of leukemia-associated somatic mutations was followed by previously reported principles [7].

Statistical analysis

The χ^2 test and Fisher exact test were performed with SPSS (version 19.0; SPSS Inc., Chicago, IL) to analyze the gene-gene co-occurrence correlation and the correlation of mutations and age. $P < 0.05$ was considered statistically significant.

Results

Overall gene mutation frequency and hotspots

We identified at least 1 mutation in 199 of the 259 samples (76.8%), and 2 or more mutations in 31.7% of samples, among which, 53 (20.5%), 24 (9.3%), and 5 (2.0%) samples carried 2, 3, and 4 kinds of gene mutations, respectively. A total of 64 combinations of gene mutations were detected. The most frequently mutated two-gene combinations included *NPM1+FLT3-ITD*, *DNMT3A+NPM1*, *DNMT3A+IDH2*, *IDH2+NPM1*, and *TET2+NPM1*, and these were respectively detected in 9, 9, 6, 6, and 6 samples; moreover, the most frequently mutated three-gene combinations included *DNMT3A+NPM1+FLT3 (ITD/TKD)* and *DNMT3A+TET2+NPM1*, and these were respectively detected in 4 and 3 samples. *FLT3-ITD* (16.2%, 42/259) was the most frequently mutated gene, followed by *CEBPA* (15.1%, 39/259), *NRAS* (14.7%, 38/259), and *NPM1* (13.5%, 35/249), which accounted for 59.5% of the total mutation frequency. The mutation frequencies of other genes are shown in Fig. 1.



Fig.1 Mutation spectrum of 16 common mutated genes in AML. Rows in the graph represent individual gene mutations, and the columns represent individual patients in the study. Vertical blue lines indicate the presence of one mutation in a patient. Vertical yellow lines and red lines

- Abstract:
- Introduction
- Materials and methods
- Subjects
- DNA extraction
- Gene sequencing and mutation analysis
- Statistical analysis
- Results
- Overall gene mutation frequency and hotspots
- Figure1
- Mutation spectra of genes in different function classifications
- Figure2
- Gene-gene co-occurrence
- Tab.1
- Tab.2
- Tab.3