



Because of a lapse in government funding, the information on this website may not be up to date, transactions submitted via the website may not be processed, and the agency may not be able to respond to inquiries until appropriations are enacted. The NIH Clinical Center (the research hospital of NIH) is open. For more details about its operating status, please visit [cc.nih.gov](http://cc.nih.gov). Updates regarding government operating status and resumption of normal operations can be found at [USA.gov](http://USA.gov).

Article types

Clinical Trial  
Review  
Customize ...

Text availability

Abstract  
Free full text  
Full text

PubMed Commons

Reader comments  
Trending articles

Publication dates

5 years  
10 years  
Custom range...

Species

Humans  
Other Animals[Clear all](#)[Show additional filters](#)Format: **Summary** ▾ Sort by: **Link** ▾ Per page: **20** ▾

Send to ▾

## Links from PubMed

Items: 17

- [Variation in Enamel Formation Genes Influences Enamel Demineralization \*In Vitro\* in a \*Streptococcus mutans\* Biofilm Model.](#)  
Pang L, Zhi Q, Zhuang P, Yu L, Tao Y, Lin H.  
Front Physiol. 2017 Oct 30;8:851. doi: 10.3389/fphys.2017.00851. eCollection 2017.  
PMID: 29163197 [Free PMC Article](#)  
[Similar articles](#)
- [Biofilms in Endodontics-Current Status and Future Directions.](#)  
Neelakantan P, Romero M, Vera J, Daood U, Khan AU, Yan A, Cheung GSP.  
Int J Mol Sci. 2017 Aug 11;18(8). pii: E1748. doi: 10.3390/ijms18081748. Review.  
PMID: 28800075 [Free PMC Article](#)  
[Similar articles](#)
- [Membrane of \*Candida albicans\* as a target of berberine.](#)  
Zorić N, Kosalec I, Tomić S, Bobnjarić I, Jug M, Vlainić T, Vlainić J.  
BMC Complement Altern Med. 2017 May 17;17(1):268. doi: 10.1186/s12906-017-1773-5.  
PMID: 28514949 [Free PMC Article](#)  
[Similar articles](#)
- [Antiproliferation of Berberine in Combination with Fluconazole from the Perspectives of Reactive Oxygen Species, Ergosterol and Drug Efflux in a Fluconazole-Resistant \*Candida tropicalis\* Isolate.](#)  
Shao J, Shi G, Wang T, Wu D, Wang C.  
Front Microbiol. 2016 Sep 23;7:1516. eCollection 2016.  
PMID: 27721812 [Free PMC Article](#)  
[Similar articles](#)

Filters: [Manage Filters](#)[Find related data](#) Database:  
Select

Find items

## Recent Activity

[Turn Off](#) [Clear](#)

Cited In for PubMed (Select 21272859) (17) PubMed

[In vitro synergism between berberine and miconazole](#) PubMed [Stimulation of superoxide production increases](#) PubMed [Artemisinins, New Miconazole Potentiators](#) [Artemisinins, new miconazole potentiators](#) PubMed[See more...](#)

5. [Syngonanthus nitens Bong. \(Rhul.\)-Loaded Nanostructured System for Vulvovaginal Candidiasis Treatment.](#)  
Dos Santos Ramos MA, de Toledo LG, Calixto GM, Bonifácio BV, de Freitas Araújo MG, Dos Santos LC, de Almeida MT, Chorilli M, Bauab TM.  
Int J Mol Sci. 2016 Aug 22;17(8). pii: E1368. doi: 10.3390/ijms17081368.  
PMID: 27556451 [Free PMC Article](#)  
[Similar articles](#)
6. [Role of Berberine in the Treatment of Methicillin-Resistant Staphylococcus aureus Infections.](#)  
Chu M, Zhang MB, Liu YC, Kang JR, Chu ZY, Yin KL, Ding LY, Ding R, Xiao RX, Yin YN, Liu XY, Wang YD.  
Sci Rep. 2016 Apr 22;6:24748. doi: 10.1038/srep24748.  
PMID: 27103062 [Free PMC Article](#)  
[Similar articles](#)
7. [Sensitization of Candida albicans to terbinafine by berberine and berberrubine.](#)  
Lam P, Kok SH, Lee KK, Lam KH, Hau DK, Wong WY, Bian Z, Gambari R, Chui CH.  
Biomed Rep. 2016 Apr;4(4):449-452. Epub 2016 Feb 23.  
PMID: 27073630 [Free PMC Article](#)  
[Similar articles](#)
8. [In vitro characterization and inhibition of the interaction between ciprofloxacin and berberine against multidrug-resistant Klebsiella pneumoniae.](#)  
Zhou XY, Ye XG, He LT, Zhang SR, Wang RL, Zhou J, He ZS.  
J Antibiot (Tokyo). 2016 Oct;69(10):741-746. doi: 10.1038/ja.2016.15. Epub 2016 Mar 2.  
PMID: 26932407 [Free PMC Article](#)  
[Similar articles](#)
9. [Potent Synergy between Spirocyclic Pyrrolidinoindolinones and Fluconazole against Candida albicans.](#)  
Premachandra ID, Scott KA, Shen C, Wang F, Lane S, Liu H, Van Vranken DL.  
ChemMedChem. 2015 Oct;10(10):1672-86. doi: 10.1002/cmdc.201500271. Epub 2015 Aug 12.  
PMID: 26263912 [Free PMC Article](#)  
[Similar articles](#)
10. [Synergistic combinations of antifungals and anti-virulence agents to fight against Candida albicans.](#)  
Cui J, Ren B, Tong Y, Dai H, Zhang L.  
Virulence. 2015;6(4):362-71. doi: 10.1080/21505594.2015.1039885. Review.  
PMID: 26048362 [Free PMC Article](#)  
[Similar articles](#)
11. [Synergistic antifungal activity of berberine derivative B-7b and fluconazole.](#)  
Li LP, Liu W, Liu H, Zhu F, Zhang DZ, Shen H, Xu Z, Qi YP, Zhang SQ, Chen SM, He LJ, Cao XJ, Huang X, Zhang JD, Yan L, An MM, Jiang YY.

---

PLoS One. 2015 May 19;10(5):e0126393. doi:  
10.1371/journal.pone.0126393. eCollection 2015.  
PMID: 25992630 [Free PMC Article](#)  
[Similar articles](#)

[Biofilm in endodontics: A review.](#)

12. Jhajharia K, Parolia A, Shetty KV, Mehta LK.  
J Int Soc Prev Community Dent. 2015 Jan-Feb;5(1):1-12. doi: 10.4103/2231-0762.151956. Review.  
PMID: 25767760 [Free PMC Article](#)  
[Similar articles](#)

[Combinatorial effects of arginine and fluoride on oral bacteria.](#)

13. Zheng X, Cheng X, Wang L, Qiu W, Wang S, Zhou Y, Li M, Li Y, Cheng L, Li J, Zhou X, Xu X.  
J Dent Res. 2015 Feb;94(2):344-53. doi: 10.1177/0022034514561259. Epub 2014 Dec 4.  
PMID: 25477312 [Free PMC Article](#)  
[Similar articles](#)

[Fluconazole assists berberine to kill fluconazole-resistant Candida albicans.](#)

14. Li DD, Xu Y, Zhang DZ, Quan H, Mylonakis E, Hu DD, Li MB, Zhao LX, Zhu LH, Wang Y, Jiang YY.  
Antimicrob Agents Chemother. 2013 Dec;57(12):6016-27. doi: 10.1128/AAC.00499-13. Epub 2013 Sep 23.  
PMID: 24060867 [Free PMC Article](#)  
[Similar articles](#)

[Mechanisms of Candida biofilm drug resistance.](#)

15. Taff HT, Mitchell KF, Edward JA, Andes DR.  
Future Microbiol. 2013 Oct;8(10):1325-37. doi: 10.2217/fmb.13.101. Review.  
PMID: 24059922 [Free PMC Article](#)  
[Similar articles](#)

[Exploring the molecular basis of antifungal synergies using genome-wide approaches.](#)

16. Agarwal AK, Tripathi SK, Xu T, Jacob MR, Li XC, Clark AM.  
Front Microbiol. 2012 Mar 27;3:115. doi: 10.3389/fmicb.2012.00115. eCollection 2012.  
PMID: 22470373 [Free PMC Article](#)  
[Similar articles](#)

[Miconazole induces fungistasis and increases killing of Candida albicans subjected to photodynamic therapy.](#)

17. Snell SB, Foster TH, Haidaris CG.  
Photochem Photobiol. 2012 May-Jun;88(3):596-603. doi: 10.1111/j.1751-1097.2011.01039.x. Epub 2011 Dec 20.  
PMID: 22077904 [Free PMC Article](#)  
[Similar articles](#)

[Back to top](#)

---

GETTING STARTED

[NCBI Education](#)  
[NCBI Help Manual](#)  
[NCBI Handbook](#)  
[Training & Tutorials](#)  
[Submit Data](#)

RESOURCES

[Chemicals & Bioassays](#)  
[Data & Software](#)  
[DNA & RNA](#)  
[Domains & Structures](#)  
[Genes & Expression](#)  
[Genetics & Medicine](#)  
[Genomes & Maps](#)  
[Homology](#)  
[Literature](#)  
[Proteins](#)  
[Sequence Analysis](#)  
[Taxonomy](#)  
[Variation](#)

POPULAR

[PubMed](#)  
[Bookshelf](#)  
[PubMed Central](#)  
[PubMed Health](#)  
[BLAST](#)  
[Nucleotide](#)  
[Genome](#)  
[SNP](#)  
[Gene](#)  
[Protein](#)  
[PubChem](#)

FEATURED

[Genetic Testing Registry](#)  
[PubMed Health](#)  
[GenBank](#)  
[Reference Sequences](#)  
[Gene Expression Omnibus](#)  
[Map Viewer](#)  
[Human Genome](#)  
[Mouse Genome](#)  
[Influenza Virus](#)  
[Primer-BLAST](#)  
[Sequence Read Archive](#)

NCBI INFORMATION

[About NCBI](#)  
[Research at NCBI](#)  
[NCBI News & Blog](#)  
[NCBI FTP Site](#)  
[NCBI on Facebook](#)  
[NCBI on Twitter](#)  
[NCBI on YouTube](#)

National Center for Biotechnology Information, U.S. National Library of Medicine  
8600 Rockville Pike, Bethesda MD, 20894 USA  
[Policies and Guidelines](#) | [Contact](#)

