

Websites that summarize chemotherapy of COVID-19					A website name										URL		
					Balint Földesi	Using Existing Therapeutics Against COVID-19									https://www.biomedol.com/resources/biomol-blog/using-existing-therapeutics-against-covid-19		
					National Institute of Health (NIH)	COVID-19 Treatment Guidelines									https://www.covid19treatmentguidelines.nih.gov/		
					Centers for Disease Control and Prevention	COVID-19									https://www.cdc.gov/coronavirus/2019-ncov/hcp/therapeutic-options.html		
					厚生労働省	新型コロナウイルス感染症について									https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/0000164708_00001.html		
					厚生労働省	新型コロナウイルス感染症について									https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/0000164708_00001.html		

Publications regarding anticonvirus drugs (case reports are not included)
既存の臨床薬の新型コロナウイルスに対する効果に関する論文（小規模症例報告を除く）

Drug 1(論文で述べられている薬剤名1)	Drug 2(論文で述べられている薬剤名2)	Drug 3(論文で述べられている薬剤名3)	Drug 3(論文で述べられている薬剤名4)	Authors(論文著者)	Title of publication(論文タイトル)	Communication/Article	Journal name(掲載雑誌名)	Year	Vol	No.	First page	Last page	Page	DOI	URL	SNS source	SNS source
5-aminolevulinic acid	sodium ferrous citrate			Yasuteru Sakurai, Mya Myat Ngwe Tun, Yohei Kurosaki, Takaya Sakura, Daniel Ken Inaoka, Kiyotaka Fujine, Kiyoshi Kita, Kouichi Morita, Iiro Yasuda	5-amino levulinic acid inhibits SARS-CoV-2 infection in vitro	Communication	Biochemical and Biophysical Research Communications	2021	545		203	207		doi.org/10.1016/j.bbrc.2021.01.091	https://doi.org/10.1016/j.bbrc.2021.01.091		
acalabrutinib				Mark Roschewski Michael S. Lionakis Jeff P. Sharman Joseph Roswarski Andre Goy M. Andrew Monticelli Michael Roshon Stephen H. Wrzesinski Jigar V. Desai Marissa A. Zarakes Jacob Cullen Keith Rose Ahmed Hande Raquel Izumi George W. Wright Kevin K. Chung Jose Baselga Louis M. Staudt Wyndham H. Wilson	Inhibition of Bruton tyrosine kinase in patients with severe COVID-19	Article	Science Immunology	2020	5	48				https://dx.doi.org/10.1126/scientificimmunology.abb0761	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7274110/		

	amlodipine				Lei-Ke Zhang , Yuan Sun , Haolong Zeng, Qingling Wang , Xiaming Jiang , Wei-Juan Shang , Yan Wu , Shufen Li , Yu-Lan Zhang , Zhao-Nian Hao , Hongbo Chen , Runming Jin , Wei Liu , Hao Li , Ke Peng and Gengfu Xiao	Calcium channel blocker amlodipine besylate therapy is associated with reduced case fatality rate of COVID-19 patients with hypertension	Article	Cell Discovery	2020	6	96			12	https://doi.org/10.1038/s41421-020-00235-0					
	amodiaquine				Yasuteru Sakurai, Norikazu Sakakibara, Masaaki Toyama, Masanori Baba, Robert A. Davey,	Novel amodiaquine derivatives potently inhibit Ebola virus infection	full paper	Antiviral Research	2018	160		175	182	8	doi.org/10.1016/j.antiviral.2018.10.025	https://doi.org/10.1016/j.antiviral.2018.10.025				
	arbidol	favipiravir			Chang Chen, Yi Zhang, Jianying Huang, Ping Yin, Zhenshun Cheng, Jianyun Wu, Song Chen, Yongxi Zhang, Bo Chen, Mengxin Lu, Yongwen Luo, Lingao Ju, Jingyi Zhang, Xinhuan Wang	Favipiravir versus Arbidol for COVID-19: A Randomized Clinical Trial	full paper									medRxiv	https://www.medrxiv.org/content/10.1101/2020.03.17.2003743v4			
	arbidol	chloroquine phosphate	lopinavir/ritonavir	ribavirin	Liying Dong, Shasha Hu, Jianjun Gao	Discovering drugs to treat coronavirus disease 2019 (COVID-19)	communication	Drug Discoveries & Therapeutics	2020	14	1	58	60		DOI: 10.5582/ddt.2020.01012		J-Stage	https://www.jstage.jst.go.jp/article/ddt/14/1/14_2020.01012/_article/-char/ja/		
	artemisinin	chloroquine	mefloquine		海老沢功	抗マラリア薬研究の進歩	review	日本化学療法学会雑誌	2007	55	5	351	357	7	DOI: org/10.11250/cchemotherapy1995.55.351	https://doi.org/10.11250/cchemotherapy1995.55.351	J-Stage	https://www.jstage.jst.go.jp/article/chemotherapy1995/55/5/5_351/_article/-char/ja/		
	AT-527 (prodrg of AT-551)				Steven S. Good, Jonna Westover, Kis Hoon Jung, Xiao-Jian Zhou, Adel Moussa, Paolo La Colla, Gabriella Colu, Bruno Canard, d.Jean-Pierre Sommadossia	AT-527, a Double Prodrug of a Guanosine Nucleotide Analog, Is a Potent Inhibitor of SARS-CoV-2 In Vitro and a Promising Oral Antiviral for Treatment of COVID-19	full paper	Antimicrobial Agents and Chemotherapy	2012	65	4	02479–20		12	doi.org/10.1128/AAC.02479-20	https://doi.org/10.1128/AAC.02479-20				
	auranofin				Hussin A. Rothan, Shannon Stone, Janhavi Natakar, Pratima Kumar, Komal Arora, Mukesh Kumar	The FDA-approved gold drug auranofin inhibits novel coronavirus (SARSCoV-2) replication and attenuates inflammation in human cells	full paper	Virology	2020	547		7	11	5	DOI: 10.1016/j.virol.2020.05.002	https://doi.org/10.1016/j.virol.2020.05.002				
	boceprevir	GC376			Lifeng Fu, Fei Ye, Yong Feng, Feng Yu, Qisheng Wang, Yan Wu, Cheng Zhao, Huan Sun, Baoying Huang, Peihua Niu, Hao Song, Yi Shi, Xuebing Li, Wenjie Tan, Jianxun Qi and George Fu Gao	Both Boceprevir and GC376 efficaciously inhibit SARS-CoV-2 by targeting its main protease	Article	Nature Communications	2020	11	4417			8		https://doi.org/10.1038/s41467-020-18233-x				
	boceprevir (GC-376)				Chunlong Ma, Michael Dominic Sacco, Brett Hurst, Julia Alma Townsend, Yannei Hu, Tommy Szeto, Xiujuan Zhang, Bart Tarbet, Michael Thomas Marty, Yu Chen and Jun Wang	Boceprevir, GC-376, and calpain inhibitors II, XII inhibit SARS-CoV-2 viral replication by targeting the viral main protease	full paper	Cell Research	2020		0	1	5	5			https://doi.org/10.1038/s41422-020-0356-z			
	cenicriviroc				Mika Okamoto, Masaaki Toyama, Masanori Baba	The chemokine receptor antagonist cenicriviroc inhibits the replication of SARS-CoV-2 in vitro	full paper	Antiviral Research	2020	182		104902		6	DOI: org/10.1016/j.antiviral.2020.104902	https://doi.org/10.1016/j.antiviral.2020.104902				
	cepharanthine				M. Baba, M. Okamoto, N. Kashiwaba and M. Ono	Anti-HIV-1 activity and structure-activity relationship of cepharanoline derivatives in chronically infected cells	full paper	Antiviral Chemistry & Chemotherapy	2002	12		307	312	6						
	cepharanthine				Christian Bailly	Cepharanthine: An update of its mode of action, pharmacological properties and medical applications	Review	Phytomedicine	2019	62		152956		12	DOI: org/10.1016/j.phymed.2019.152956	https://doi.org/10.1016/j.phymed.2019.152956				
	cepharanthine				Moshe Rogosnitzky, Rachel Danks	Therapeutic potential of the biscolcaurine alkaloid, cepharanthine, for a range of clinical conditions	Review	Pharmacological Reports	2011	63		337	347	11			ResearchGate	https://www.researchgate.net/publication/51156184_Therapeutic_potential_of_the_biscolcaurine_alkaloid_cepharanthine_for_a_range_of_clinical_conditions		
	cepharanthine	GUT-70			松田 幸樹, 岡田 誠治	フローサイトメーターを用いたウイルス侵入阻害素スクリーニング法の樹立		Cytometry Research	2015	25	1	25	28	4			J-Stage	https://www.jstage.jst.go.jp/article/cytometreresearch/25/1/25_D-15-00005/_article/-char/ja/		

	cepharanthine				岡本実佳 Mika OKAMOTO	宿主細胞因子を標的としたHIV-1抑制に関する研究 (Cellular Factors as Targets for Anti-HIV-1 Chemotherapy)	Review	The Journal of AIDS Research (日本エイズ学会誌)	2006	8	2	92	99	8		J-Stage	https://www.istage.jst.go.jp/article/aidsr19_99/8/8_2_92/_article/char/ja	
	cepharanthine				亀谷哲治、八木治彦、浅黄節、菅野和子、脇坂菊雄 Tetsuji Kametani, Haruhiko Yagi, Setsu Asagi, Kazuko Kanno, Kikuo Wakisaka	Cepharanthine関連化合物の合成研究 (第2報) 1-(3-Bromo-4-methoxybenzyl)-1,2,3,4-tetrahydro-6-methoxy-2-methyl-7-isouquinolinolの合成(複素環式化合物の合成研究 第183報)	Full paper	薬学雑誌 (Yakugaku Zasshi)	1967	87	7	749	752	4				
	cepharanthine	atovaquone (ATO),	chloroquine (CQ),	lumefantrine (LUM), piperazine (PPQ)	Camille Desgrouas, Jérôme Dormo, Charles Chapus, Evelyne Ollivier, Daniel Parzy and Nicolas Taudon	In vitro and in vivo combination of cepharanthine with anti-malarial drugs		Malaria Journal	2014	13	90			7	DOI:10.1186/1475-2875-13-90	http://www.malariajournal.com/content/13/1/90	ResearchGate	
	cepharanthine				Kouki Matsuda, Shinichiro Hattori, Yuji Komizu, Ryusho Kariya, Ryuichi Ueoka, Seiji Okada	Cepharanthine Inhibited HIV-1 Cell-Cell Transmission and Cell-free Infection via modification of cell Membrane Fluidity	full paper	Bioorganic & Medicinal Chemistry Letters	2014	24		2115	2117	3	doi.org/10.1016/j.bmcl.2014.03.041	https://www.sciencedirect.com/science/article/pii/S0960894X14002686		
	cepharanthine	fangchinoline	tetrandrine		Dong Eon Kim, Jung Sun Min, Min Seong Jang, Jun Young Lee, Young Sup Shin, Chul Min Park, Jong Hwan Song, Hyoung Rae Kim, Seungtaek Kim, Young-Hee Jin and Sungh Kwon	Natural Bis-Benzylisoquinoline Alkaloids-Tetrandrine, Fangchinoline, and Cepharanthine, Inhibit Human Coronavirus OC43 Infection of MRC-5 Human Lung Cells	full paper	Biomolecules	2019	9		696		1	doi:10.3390/biom9110696	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6921063/		
	cepharanthine	nefifinavir			Hiromi Ohashi, Koichi Watachi, Wakana Saso, Kaho Shionoya, Shoya Iwanami, Takatsugu Hirokawa, Tsuyoshi Shirai, Shigehiko Kanaya, Yusuke Ito, Kwang Su Kim, Takao Nomura, Takeki Suzuki, Kazane Nishioka, Shuji Ando, Keisuke Ejima, Yoshiki Koizumi, Tomohiro Tanaka, Shin Aoki, Kouji Kuramochi, Tadaki Suzuki, Takao Hashiguchi, Katsumi Maenaka, Tetsuro Matano, Masamichi Muramatsu, Masayuki Sajio, Kazuyuki Aihara, Shingo Iwami, Makoto Takeda, Jane A. McKeating, Takaji Wakita	Potential Anti-COVID-19 Agents, Cepharanthine and Nefifinavir, and Their Usage for Combination Treatment	full paper	iScience	2021	24	4	102367		11	doi:10.1016/j.isci.2021.102367	https://www.sciencedirect.com/science/article/pii/S258904211003357?via%3Dhub	https://www.biorxiv.org/content/10.1101/2020.14.039925v1.full.pdf+html	
	cepharanthine	nafamostat			岡野和雄	メシリ酸ナファモスタットとセファランチンの併用による小口径静脈再建後早期における抗血栓作用に関する実験的研究		岡山医学会雑誌	1992	104		107	115	9		J-Stage	https://www.istage.jst.go.jp/article/joma19_47/104/1-2/104_1-2_107/_pdf	
	cepharanthine	gabexate	nafamostat		岡野和雄	蛋白分解酵素阻害剤およびマファンチンの小口径静脈再建における抗血栓作用に関する実験的研究		人工臓器	1990	19	3	1353	1356	4		J-Stage	https://www.istage.jst.go.jp/article/jsoa19_2/19/3/19_3_1353/_article/char/ja/	
	cepharanthine				Masao Tomita, Kazuyoshi Fujitani, and Yoshiaki Aoyagi	Synthesis of dl-Cepharanthine	communicatio	Tetrahedron Letters	1967	13		1201	1206	6				
	cepharanthine	mefloquine	selamectin		Hua-Hao Fan, Li-Qin Wang, Wen-Li Liu, Xiao-Ping An, Zhen-Dong Liu, Xiao-Qi He, Li-Hua Song, Yi-Gang Tong	Repurposing of clinically approved drugs for treatment of coronavirus disease 2019 in a 2019-novel coronavirus-related coronavirus model		Chinese Medical Journal	2020	133	9	1051	1056	6	DOI:10.1097/CMA.0000000000000797.	https://journals.lww.com/cmj/fulltext/2020/05050/Repurposing_of_clinically_approved_drugs_for_8.aspx	https://pubmed.ncbi.nlm.nih.gov/3214976/	

	cepharantine				横島 徹, 堀 修一郎, 大槻 俊治, 高市 松夫, 中島 敏秀, 赤須 通範	Cepharantineの生物活性に関する研究、ラットにおける吸収、分布、代謝、排泄 (Studies on Metabolic Fate of Cepharantine Absorption, Distribution and Excretion in Rats)	論文	医薬品研究	1986	17	3	458	479	22		J-GLOBAL	https://global.jst.go.jp/detail?JGLOBAL_ID=200902098942424967		
	cepharantine				安田耕太郎、茂呂光男、赤須 通範、大西明弘	Cepharanthin の第I相臨床試験(単回および連続静脈内投与)における薬物動態 (Studies on Metabolic Fate of Cepharantine Absorption, Distribution and Excretion in Rats)	論文	臨床薬理・日本語版 Journal of Clinical and Pharmacological Therapy 20 (4) Dec 1989	1989	20	4	741	749	9		J-STAGE	https://www.jstage.jst.go.jp/article/jscpt1970/20/4/20_4_741/_article/-char/ja/		
	chinese herbal medicines				Fangfang Huang, Ying Li, Elaine Lai-Han Leung, Xiaohua Liu, Kaifeng Liu, Qu Wang, Yongqi Lan, Xiaoling Li, Haibing Yu, Liao Cui, Hui Luo, Lianxiang Luo	A review of therapeutic agents and Chinese herbal medicines against SARS-CoV-2 (COVID-19)	review	Pharmacological Reports	2020	158		104929		12	doi.org/10.1016/j.phrs.2020.104929	https://www.sciencedirect.com/science/article/pii/S1043661820312378?via%3Dhub			
No.	chloroquine	remdesivir			Manli Wang, Ruiyuan Cao, Leike Zhang, Xinglong Yang, Jia Liu, Mingyue Xu, Zhengli Shi, Zhihong Hu, Wu Zhong and Gengfu Xiao	Remdesivir and chloroquine effectively inhibit the recently emerged novel coronavirus (2019-nCoV) in vitro	Communication	Cell Research	2020	30		269	271	3		https://doi.org/10.1038/s41422-020-0282-0		https://pubmed.ncbi.nlm.nih.gov/31690059/	
	chloroquine				Satyajit Beura & Prabhakar Chetti	In-silico strategies for probing chloroquine based inhibitors against SARS-CoV-2	full paper	Journal of Biomolecular Structure and Dynamics	2020					1	DOI: 10.1080/07391020.2020.1772111	https://doi.org/10.1080/07391020.2020.1772111			
	chloroquine				Martin J Vincent, Eric Bergeron, Suzanne Benjamat, Bobbie R Erickson, Pierre E Rollin, Thomas G Ksiazek, Nabil G Seidah and Stuart T Nichol	Chloroquine is a potent inhibitor of SARS coronavirus infection and spread		Virology Journal	2005	2	69			10	DOI: 10.1186/1743-422X-2-69	https://virology.biomedcentral.com/articles/10.1186/1743-422X-2-69			
	chloroquine				Yi-Fan Wu, Ping Zhao, Xi Luo, Jin-Chao Xu, Lu Xue, Qi Zhou, Mingrui Xiong, Jinhua Shen, Yong-Bo Peng, Meng-Fei Yu, Weiwei Chen, Liqun Ma and Qing-Hua Liu	Chloroquine inhibits Ca ²⁺ permeable ion channels-mediated Ca ²⁺ signalling in primary B lymphocytes	Full paper	Cell & Bioscience	2017	7	28			5	DOI: 10.1186/s13578-017-0155-5	https://doi.org/10.1186/s13578-017-0155-5		https://pubmed.ncbi.nlm.nih.gov/28546857/	
	chloroquine				ANDREW F. G. SLATER	Chloroquine Mechanism of Drug Action and Resistance in Plasmodium Falciparum	Review	Pharmaceutical Therapy	1993	57	2-3	203	235	33		https://www.sciencedirect.com/science/article/pii/10435893900056J			
	ciclesonide				Taylor, DA ; Jensen, MW ; Kanabar, V ; Engelstaeter, R ; Steinijans, VW ; Barnes, PJ ; O'Connor, BJ	A Dose-dependent Effect of the Novel Inhaled Corticosteroid Ciclesonide on Airway Responsiveness to Adenosine-5'-Monophosphate in Asthmatic Patients	Article	American Journal of Respiratory and Critical Care Medicine	1999	160	1	237	243	7	10.1164/ajrcm.160.1.9809046	https://doi.org/10.1164/ajrcm.160.1.9809046			
	dexamethasone	morphine			N. H. Waldron, C. A. Jones, T. J. Gan, T. K. Allen and A. S. Habib	Impact of perioperative dexamethasone on postoperative analgesia and side-effects: systematic review and meta-analysis	Review	British Journal of Anaesthesia	2013	110	2	191	200	10	10.1093/bja/aeq431	https://doi.org/10.1093/bja/aeq431			
	emetine	homoharringtonine	lopinavir	remdesivir	Ka-Tim Choy, Alvina Yin-Lam Wong, Prathanporn Kaewpreedeeyee, Sin Fun Sia, Dongdong Chen, Kenrie Pui Yan Hui, Daniel Ka Wing Chu, Michael Chi Wai Chan, Peter Pak-Hang Cheung, Xuhui Huang, Malik Peiris, Hui-Ling Yen	Remdesivir, lopinavir, emetine, and homoharringtonine inhibit SARS-CoV-2 replication in vitro	full paper	Antiviral Research	2020	178		104786		5	DOI: org/10.1016/j.antiviral.2020.104786	https://doi.org/10.1016/j.antiviral.2020.104786			
	favipiravir				Fangyuan Shi, Zongtao Li, Lingjin Kong, Yuanchao Xie, Tao Zhang, Wenfang Xu	Synthesis and crystal structure of 6-fluoro-3-hydroxypyrazine-2-carboxamide	full paper	Drug Discoveries & Therapeutics	2014	8	3	117	120	4	DOI: 10.5568/ddt.2014.01028				
	favipiravir				古田要介	ファビピラビル:ウイルスRNAポリマーーゼ阻害薬	review	日本化学療法学会雑誌	2017	65	5	736	744	9		http://www.chemotherapy.or.jp/journal/jic/06509/065050736.pdf		http://journal.chemotherapy.or.jp/detail.php?DB=jsc&-recid=5264&-action=browse	
	favipiravir				古田要介	ファビピラビル(T-705)—ウイルスRNA依存性RNAポリマーゼ阻害剤—	review	日本臨床微生物学誌	2019	29	2	58	66	9					

	favipiravir	lopinavir/ritonavir			Qingxian Cai, Minghui Yang, Dongjing Liu, Jun Chen, Dan Shu, Junxia Xia, Xuejiao Liao, Yuanbo Gu, Qie Cai, Yang Yang, Chengguang Shen, Xiaohe Li, Ling Peng, Deliang Huang, Jing Zhang, Shurong Zhang, Fuxiang Wang, Jiaye Liu, Li Chen, Shuyan Chen, Zhaoqin Wang, Zheng Zhang, Ruiyuan Cao, Wu Zhong, Yingxia Liu, Lei Liu	Experimental Treatment with Favipiravir for COVID-19: An Open-Label Control Study	Engineering	2020			in press		doi.org/10.1016/j.jeng.2020.03.007		ResearchGate	https://www.researchgate.net/publication/340000976_Experimental_Treatment_with_Favipiravir_for_COVID-19_An_Open-Label_Control_Study		
	favipiravir				Yousuke Furuta, Takashi Komeno, and Takaaki Nakamura	Favipiravir (T-705), a broad spectrum inhibitor of viral RNA polymerase	review	Proceedings of the Japan Academy, Series B, Physical and Biological Sciences	2017	93	7	449	463	doi: 10.2183/pjab.93.027	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5713173/			
	favipiravir				Leen Delang, Rana Abdelnabi, Johan Neyts	Favipiravir as a potential countermeasure against neglected and emerging RNA viruses	review	Antiviral Research	2019	153	May	85	94	doi.org/10.1016/j.antiviral.2018.03.003	https://www.sciencedirect.com/science/article/abs/pii/S0166354218300172			
	favipiravir				Ashleigh Shannon , Barbara Selisko, Nhung-Thi-Tuyet Le , Johanna Huchting , Franck Touret , Géraldine Piorkowski, Véronique Fattorini , François Ferron , Etienne Decroly , Chris Meier, Bruno Coutard, Olve Peersen and Bruno Canard	Rapid incorporation of Favipiravir by the fast and permissive viral RNA-polymerase complex results in SARS-CoV-2 lethal mutagenesis	Article	Nature Communications	2020	11	4682			9		https://doi.org/10.1038/s41467-020-18463-z		
	Favipiravir				Yuriko Tomita, Makoto Takeda, Shutoku Matsuyama	The Anti-Influenza Virus Drug Favipiravir Has Little Effect on Replication of SARS-CoV-2 in Cultured Cells	communication	Antimicrobial Agents and Chemotherapy	2021	65	6	e00020-21		doi.org/10.1128/eAAC.00020-2	https://doi.org/10.1128/eAAC.00020-2			
	GRL-1720	5h			Shin-ichiro Hattori, Nobuyu Higashikawa, Hironori Hayashi, Srinivas Rao Allu, Jakkha Raghaaviah, Haydar Bulut , Debananda Das, Brandon J. Anson, Emma K. Lendy, Yuki Takamatsu, Nobutoki Takamine, Naoki Kishimoto, Kazutaka Murayama, Kazuya Hasegawa, Mi Li, David A. Davis, Eiichi N. Kodama, Robert Yarchoan, Alexander Wlodawer, Shogo Misumi, Andrew D. Mesecar, Arun K. Ghosh and Hiroaki Mitsuya	A small molecule compound with an indole moiety inhibits the main protease of SARS-CoV-2 and blocks virus replication	Article	Nature Communications	2021	12		668				https://doi.org/10.1038/s41467-021-20900-6		
	GS-441524 (Parent drug of remdesivir)				Niels C Pedersen , Michel Perron, Michael Barnasch, Elizabeth Montgomery, Eisuke Murakami, Molly Liepniks and Hongwei Liu	Efficacy and safety of the nucleoside analog GS-441524 for treatment of cats with naturally occurring feline infectious peritonitis	full paper	Journal of Feline Medicine and Surgery	2019	21	4	271	281	11	doi.org/10.1177/1098612X19825701	https://journals.sagepub.com/doi/10.1177/1098612X19825701	PubMed	https://pubmed.ncbi.nlm.nih.gov/3075508/
	ivermectin				Leon Caly, Julian D. Druce, Mike G. Catton, David A. Jans, Kylie M. Wagstaff	The FDA-approved drug ivermectin inhibits the replication of SARS-CoV-2 in vitro	full paper	Antiviral Research	2020	178		104787		4	DOI: doi.org/10.1016/j.antiviral.2020.104787	https://doi.org/10.1016/j.antiviral.2020.104787		
	ivermectin				Atsushi Miyajima , Takashi Hirota, Akihito Sugioka, Masao Fukuzawa, Mari Serine, Yosuke Yamamoto, Takashi Yoshimatsu, Akira Kigure, Taichi Anata, Wataru Noguchi, Keita Akaga, Masayo Komoda	Effect of high-fat meal intake on the pharmacokinetic profile of ivermectin in Japanese patients with scabies		Journal of Dermatology	2016	43		1030	1036	7	doi: 10.1111/j.1346-8138.13321			
	ivermectin				阿久津駿太、赤木圭太、山田瑞稀、矢田目麻衣、倉科亮太、丸山莉穂、福沢正男、関根万里、尾関理恵、小茂田昌代	イベルメクチンの高脂防食後投与の影響に関する研究のサブ解析—肝機能障害発症症例のリスク因子解析—(Sub analysis of the study on the effect of high fat meal intake on ivermectin - Risk factor analysis of cases with liver dysfunction -)		日本医薬品安全性学会会誌	2018	4	1	28	41	14				
	ivermectin				Karen L. Goa, Donna McTavish and Stephen P. Clissold	Ivermectin. A Review of Its Antifilarial Activity, Pharmacokinetic Properties and Clinical Efficacy in Onchocerciasis	review	Drugs	1991	42		640	658	19	doi: 10.2165/00003495-199142040-00007	https://link.springer.com/article/10.2165/00003495-199142040-00007	PubMed	https://pubmed.ncbi.nlm.nih.gov/1723361/

	ivermectin				Usha Vaidyanathan	Review of Ivermectin in Scabies	review	Journal of Cutaneous Medicine and Surgery	2001	5	6	496	504	9	doi: 10.1177/12037540100500607	https://journals.sagepub.com/doi/10.1177/12037540100500607	PubMed	https://pubmed.ncbi.nlm.nih.gov/1190785/		
	ivermectin				Pascal del Giudice	Ivermectin in Scabies	review	Current Opinion in Infectious Diseases	2002		15	2	123	126	4	DOI: 10.1097/00001432-200204000-00004		PubMed	https://pubmed.ncbi.nlm.nih.gov/11964911/	
	ivermectin				Eric A. Ottesen, William Campbell	Ivermectin in Human Medicine	review	Journal of Antimicrobial Chemotherapy	1994	34	2	195	203	9	doi.org/10.1093/jac/34.2.195	https://doi.org/10.1093/jac/34.2.195				
	ivermectin				Satoshi Omura & Andy Crump	The life and times of ivermectin — a success story	review	Nature Reviews Microbiology	2004		2		984	989	6	doi.org/10.1038/nrmicro1048	https://www.nature.com/articles/nrmicro1048			
	ivermectin				Virginia D. Schmitt, Jie Jessie Zhou, Lauren R. Lohmer	The Approved Dose of Ivermectin Alone is not the Ideal Dose for the Treatment of COVID-19	full paper	Clinical Pharmacology and Therapeutics	2020			in press		#VALUE!	DOI: 10.1002/cpt.1889		PubMed	https://ascpt.onlinelibrary.wiley.com/doi/abs/10.1002/cpt.1889		
	lycorine	remdesivir	other drugs		Jung Sun Min, Sunoh Kwon, and Young-Hee Jin	SARS-CoV-2 RdRp Inhibitors Selected from a Cell-Based SARS-CoV-2 RdRp Activity Assay System	full paper	biomedicines	2021	9		996		14	doi.org/10.3390/biomedicines9080996	https://doi.org/10.3390/biomedicines9080996				
	many drugs				Arun K.G., Sharanya C.S., Abhithaj J and Sadasivan C	Drug Repurposing to Identify Therapeutics Against COVID-19 with SARS-CoV-2 Spike Glycoprotein and Main Protease as Targets: An in Silico Study			2020					1		https://www.ncbi.nlm.nih.gov/pmc/articles/Drug_Reruposing_to_Identify_Therapeutics_Against_COVID_19_with_SA/	chemRxiv			
	many drugs				Giuseppe Mancia, Federico Rea, Monica Ludergnani, Giovanni Apolone, and Giovanni Corrao	Renin–Angiotensin–Aldosterone System Blockers and the Risk of Covid-19		The New England Journal of Medicine	2020	382		2441	2448	8	DOI: 10.1056/NEJMoa2006923	https://www.nejm.org/doi/full/10.1056/NEJMoa2006923				
	many drugs				Rameswari Chilamakuri and Saurabh Agarwal	COVID-19: Characteristics and Therapeutics	Review	Cells	2021	10	2	206		29	doi.org/10.3390/cells10020206	https://doi.org/10.3390/cells10020206				
	many drugs				Hyun Jin Jeong, Sein Min, Heelim Chae, Sarah Kim, Gunwoo Lee, Sung Keon Namgoong and Keunhong Jeong	Signal amplification by reversible exchange for COVID-19 antiviral drug candidates	Article	Scientific Reports	2020	10	14290			13		http://www.nature.com/scientificreports/				
	many drugs				Huihui Yang and Jinfei Yang	A review of the latest research on Mpro targeting SARS-CoV inhibitors	review	RSC Medicinal Chemistry	2021						10.1039/d1md00066g					
	many drugs				Rameswari Chilamakuri and Saurabh Agarwal	COVID-19: Characteristics and Therapeutics	review	Cells	2021	10		26		29	doi.org/10.3390/cells10020206	https://doi.org/10.3390/cells10020206				
	many drugs				Sirle Saul and Shirit Einav	Old Drugs for a New Virus: Repurposed Approaches for Combating COVID-19	review	ACS Infectious Diseases	2020	6		2304	2318	15	doi:10.1021/acscinfodis.0c00343	https://pubs.acs.org/doi/10.1021/acscinfodis.0c00343				

many drugs (sigma-1 receptor ligands)				José Miguel Vela	Repurposing Sigma-1 Receptor Ligands for COVID-19 Therapy?	review	Frontiers in Pharmacology	2020	11	Article 582310		10.3389/phar.2020.582310	https://doi.org/10.3389/phar.2020.582310					
mefloquine				Sue J. Lee, Feiko O. ter Kuile, Ric N. Price, Christine Luxemburger, François Nosten	Adverse effects of mefloquine for the treatment of uncomplicated malaria in Thailand: A pooled analysis of 19,850 individual patients	full paper	PLoS ONE	2017	12	e0168780.		DOI:10.1371/journal.pone.0168780	https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0168780					
mefloquine				Ashley M Croft and Andrew Herxheimer	Adverse effects of the antimalaria drug, mefloquine: due to primary liver damage with secondary thyroid involvement?	full paper	BMC Public Health	2002	2	Article No. 6		#VALUE!	DOI:10.1186/1471-2458-2-6	http://www.biomedcentral.com/1471-2458/2/6	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC101408/			
mefloquine				W. P. Hems, W. P. Jackson, P. Nightingale, R. Bryant	Practical Asymmetric Synthesis of (+)-erythro-Mefloquine Hydrochloride	full paper	Organic Process Research & Development	2012	16	3	461	463	DOI:10.1021/op200354f	https://pubs.acs.org/doi/abs/10.1021/op200354f				
mefloquine				F. I. Carroll and J. T. Blackwell	Optical Isomers of Aryl-2-piperidylmethanol Antimalarial Agents. Preparation, Optical Purity, and Absolute Stereochemistry	full paper	Journal of Medicinal Chemistry	1974	17	2	210	219	DOI:10.1021/jm00248a015	https://pubs.acs.org/doi/pdf/10.1021/jm00248a015				
mefloquine				Nina Schutzenmeister, Michael M Iller, Uwe M. Reinscheid, Christian Griesinger, and Andrei Leonov	Trapped in Misbelief for Almost 40 Years: Selective Synthesis of the Four Stereoisomers of Mefloquine	full paper	Chemistry, A European Journal	2013	19		17584	17588	org/10.1002/chem.201303403]	https://doi.org/10.1002/chem.201303403]				
mefloquine				Jinyue Ding and Dennis G. Hall	Concise Synthesis and Antimalarial Activity of All Four Mefloquine Stereoisomers Using a Highly Enantioselective Catalytic Borylative Alkene Isomerization**	communication	Angewandte Chemie, International Edition	2013	52		8069	8073	org/10.1002/anie.201303931]	https://doi.org/10.1002/anie.201303931]				
mefloquine				Alexandra Dassonville-Klimpt, Christine Cézard, Catherine Mullié, Patrice Agnacay, Alexia Jonet, Sophie Da Nascimento, Mathieu Marchivie, Jean Guillou, and Pascal Sonnet	Absolute Configuration and Antimalarial Activity of erythro-Mefloquine Enantiomers	communication	ChemPlusChem	2013	78		642	646	org/10.1002/cplu.201300074]	https://chemistry-europe.onlinelibrary.wiley.com/doi/full/10.1002/cplu.201300074				
mefloquine	nelfinavir			Kaho Shionoya, Masako Yamasaki, Shoya Iwanami, Yusuke Ito, Shuetsu Fukushi, Hirofumi Ohashi, Wakana Saso, Tomohiro Tanaka, Shin Aoki, Kouji Kuramochi, Shingo Iwami, Yoshimasa Takahashi, Tadaki Suzuki, Masamichi Muramatsu, Makoto Takeda, Takaji Wakita, Koichi Watashi	Mefloquine, a Potent anti-Severe Acute Respiratory Syndrome-related Coronavirus 2 (SARS-CoV-2) drug as an entry inhibitor <i>in vitro</i>	Article	Frontiers in Microbiology	2021	12		651403		DOI:10.3389/fmicb.2021.651403	https://doi.org/10.3389/fmicb.2021.651403	https://www.biorxiv.org/content/10.1111/20.11.19.389726v1			
mefloquine				Inventors/Applicant: Andrew Douglas Baxter, Michael Christ Harris, Stuart Brown	Resolution of Mefloquine with O,O-Di-p-aryltartaric Acid		World Intellectual Property Organization	International Publication Date 11 June 2004 (17.06.2004)					International Publication Number: WO 2004/050625 A1					
mefloquine				発明者 アンドリュー ダグラス バクスター、マイケル クリストファー ハリス、スチュアート ブラウン	Resolution of Mefloquine with O,O-Di-p-aryltartaric Acid		公表特許公報(A)	公表日:平成18年5月18日					特許出願公表番号:特表2006-514938(JP 2006-514938)					
mefloquine				Solange Adams	A Straightforward and High Yielding Synthesis of Mefloquine-II		Tetrahedron	1991	47	36	7609	7614	6		https://www.sciencedirect.com/science/article/pii/S0040402001882843?via%3Dihub			
mefloquine				竹島茂人	マラリア予防薬としてメフロキンを長期投与した際の副作用について		Japanese Journal of Tropical Medicine and Hygiene (日本熱帯医学会)	1994	22	4	185	192	8			https://www.jstage.jst.go.jp/article/tmh197/3/22/4/2_4_185/_pdf	J-Stage	
methylene blue				G. Lu M. Nagabandi, N. Goldau, M. Mendes Jorge, P. Meissner, A. Jahn, F. P. Mockenhaupt and O. Müller	Efficacy and safety of methylene blue in the treatment of malaria: a systematic review	review	BMC Medicine	2018	16		59		16	DOI:10.1186/s12886-018-1045-3	https://doi.org/10.1186/s12886-018-1045-3			

nafamostat			Mizuki Yamamoto, Maki Kiso, Yuko Sakai-Tagawa, Kiyoko Iwatsuki-Horimoto, Masaki Imai, Makoto Takeda, Noriko Kinoshita, Norio Ohmagari, Jin Gohda, Kentaro Sembra, Zene Matsuda, Yasushi Kawaguchi, Yoshihiro Kawaoka, Jun-ichiro Inoue	The anticoagulant nafamostat potently inhibits SARS-CoV-2 infection in vitro: an existing drug with multiple possible therapeutic effects	full paper							doi.org/10.1101/2020.04.22.205498	https://doi.org/10.1101/2020.04.22.205498v1	bioRxiv	https://www.biorxiv.org/content/10.1101/2020.04.22.205498v1		
nafamostat			Hidekazu Nishimura and Mutsuo Yamaya	A Synthetic Serine Protease Inhibitor, Nafamostat Mesilate, Is a Drug Potentially Applicable to the Treatment of Ebola Virus Disease	full paper	The Tohoku Journal of Experimental Medicine	2015	237		45	50	6	doi:10.1620/tjem.237.45	https://www.istag.eist.go.jp/article/tjem/237/1/237_45/pdf-charja			
nafamostat			Xi Chen, Zhijie Xu, Shuangshuang Zeng, Xiang Wang, Wanli Liu, Long Qian, Jie Wei, Xue Yang, Quying Shen, Zhicheng Gong and Yuanliang Yan	The Molecular Aspect of Antitumor Effects of Protease Inhibitor Nafamostat Mesylate and Its Role in Potential Clinical Applications	review	frontiers in Oncology	2019	9		852		12 pages	doi:10.3389/fonc.2019.00852	https://www.frontiersin.org/articles/10.3389/fonc.2019.00852/full			
nelfinavir			Blair Jarvis & Diana Faulds	Nelfinavir. A Review of Its Therapeutic Efficacy in HIV Infection	review	Drugs	1998	56	1	147	167	21	DOI: 10.2165/00003495-199856010-00013	https://pubmed.ncbi.nlm.nih.gov/9664204/			
nelfinavir			Zhijian Xu, Cheng Peng, Yulong Shi, Zhengdan Zhu, Kajie Mu, Xiaoyu Wang, Weiliang Zhu	Nelfinavir was predicted to be a potential inhibitor of 2019-nCoV main protease by an integrative approach combining homology modelling, molecular docking and binding free energy calculation	full paper							1			bioRxiv	https://doi.org/10.1101/2020.01.27.921627	
nelfinavir			Vanessa Meier-Stephenson, Justin Riemer, Aru Narendran	The HIV protease inhibitor, nelfinavir, as a novel therapeutic approach for the treatment of refractory pediatric leukemia	review	OncoTargets and Therapy	2017	10		2581	2593	13		https://doi.org/10.2147/OTT.S136484			
nelfinavir			Takashi Inaba, Angela G. Birchler, Yasuki Yamada, Shoichi Sagawa, Katsuyuki Yokota, Koji Ando, and Itsuo Uchida	A Practical Synthesis of Nelfinavir, an HIV-Protease Inhibitor, Using a Novel Chiral C4 Building Block: (5R,6S)-2,2-Dimethyl-5-hydroxy-1,3-dioxepan-6-ylammonium Acetate	communication	Journal of Organic Chemistry	1998	53		7582	7583	2	10.1021/jo981472n				
nelfinavir			Noha H. Salama, Edward J. Kelly, Tot Bui, Rodney, J. Y. Ho	The Impact of Pharmacologic and Genetic Knockout of P-Glycoprotein on Nelfinavir Levels in the Brain and Other Tissues in Mice	full paper	Journal of Pharmaceutical Sciences	2005	94	6	1216	1225	10	org/10.1002/jps.20344	https://www.sciencedirect.com/science/article/pii/S0022354916317816			
nelfinavir			Usman Arshad1, Henry Pertinez, Helen Box, Lee Tatham, Rajith K. R. Rajoli, Paul Curley, Megan Neary, Joanne Sharp, Neill J. Liptrott, Anthony Valentijn, Christopher David, Steve P. Rannard, Paul M. O'Neill, Ghail Ghajyyoussi, Shaun H. Pennington, Stephen A. Ward, Andrew Hill, David J. Bach, Saye H. Khoo, Patrick G. Bray, Giancarlo A. Biagini and Andrew Owen	Prioritization of Anti-SARS-CoV-2 Drug Repurposing Opportunities Based on Plasma and Target Site Concentrations Derived from their Established Human Pharmacokinetics	full paper	Clinical Pharmacology & Therapeutics	2020					16	org/10.1002/cpt.1909	https://ascp.onlinelibrary.wiley.com/doi/full/10.1002/cpt.1909			
phenanthridin-6-one			Hiroshi Aoyama, Kazuyuki Sugita, Masahiko Nakamura, Atsushi Aoyama, Mohammed T. A. Salim, Mika Okamoto, Masanori Baba, Yuichi Hashimoto	Fused heterocyclic amido compounds as anti-hepatitis C virus agents	full paper	Bioorganic & Medicinal Chemistry	2011	19	8	2675	2687	13	org/10.1016/j.bmc.2011.03.002	https://doi.org/10.1016/j.bmc.2011.03.002			

	phenanthridin-6-one				Aoyama, A., Aoyama, H., Dodo, K., Makishima, M., Hashimoto, Y. and Miyachi, H.	LXR antagonists with a 5-substituted phenanthridin-6-one skeleton: synthesis and LXR restricted carbazole T0901317 analogs	communication	Heterocycles 76,	2008	76	1	137	142	6	10.3987/COM-07-S(N)7	https://www.heterocycles.jp/newlibrary/libraries/abst/02589				
	phenanthridin-6-one				Yuko Nishiyama, Shuichi Mori, Makoto Makishima, Shinya Fujii, Hiroyuki Kagechika, Yuichi Hashimoto, and Minoru Ishikawa	Novel Nonsteroidal Progesterone Receptor (PR) Antagonists with a Phenanthridinone Skeleton	full paper	ACS Medicinal Chemistry Letters	2018	9	7	641	645	5	DOI: 10.1021/acsm.smmedlett.b800058	https://pubs.acs.org/doi/10.1021/acsm.smmedlett.b800058	PMC	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6047039/		
	rapamycin				Angela Lombardi, Jessica Gambardella, Xue-Liang Du ¹ , Daniela Sorrento, Maurizio Mauro ¹ , Guido Iaccarino, Bruno Trimarco & Gaetano Santulli	Sirolimus induces depletion of intracellular calcium stores and mitochondrial dysfunction in pancreatic beta cell	full paper	Scientific Reports		7		15823		9	DOI:10.1038/s41598-017-15283-y		ResearchGate	https://www.researchgate.net/publication/320856258_Sirolimus_induces_depletion_of_intracellular_calcium_stores_and_mitochondrial_dysfunction_in_pancreatic_beta_cells		
	rapamycin				Brian Raught, Anne-Claude Gingras, and Nahum Sonenberg	The target of rapamycin (TOR) proteins	Article	Proceedings of the National Academy of Sciences of the United States of America	2001	98	13	7037	7044	7		https://doi.org/10.1073/pnas.121145898				
	remdesivir				Yeming Wang, Dingyu Zhang, Guanhua Du, Ronghui Du, Jianping Zhao, Yang Jin, Shouzhi Fu, Ling Gao, Zhenshun Cheng, Qiaofa Lu, Yi Hu, Guangwei Luo, Ke Wang, Yang Lu, Huadong Li, Shuzhen Wang, Shuhan Ruan, Chengqiang Yang, Chunlin Mei, Yi Wang, Dan Ding, Feng Wu, Xin Tang, Xianzhi Ye, Yingchun Ye, Bing Liu, Jie Yang, Wen Yin, Ali Wang, Guohui Fan, Fei Zhou, Zhibo Liu, Xiaoying Gu, Jiuyang Cao, Tingting Guo, Yan Wan, Hong Qin, Yushen Jiang, Thomas Jakl, Frederick G Hayden, Peter W Horby, Bin Cao, Chen Wang	Remdesivir in adults with severe COVID-19: a randomised, double-blind, placebo-controlled, multicentre trial	full paper	The Lancet	2020	395		1569	1576	10	doi.org/10.1016/S0140-6736(20)31022-9	https://doi.org/10.1016/S0140-6736(20)31022-9				
	remdesivir				Janis A. Müller, Rüdiger Groß, Carina Conzelmann, Jana Krüger, Uta Merle, Johannes Steinhardt, Tatjana Weil, Lennart Koepke, Caterina Prelli Bozzo, Clarisse Read, Giorgio Fois, Tim Eisele, Julia Gehrmann, Joanne van Vuuren, Isabel M. Wessbecher, Manfred Frick, Ivan G. Costa, Markus Breunig, Beate Grüner, Lynn Peters, Michael Schuster, Stefan Liebau, Thomas Seufferlein, Steffen Stenger, Albrecht Stenzinger, Patrick E. MacDonald, Frank Kirchhoff, Konstantin M. J. Sparre, Paul Walther, Heiko Lickert, Thomas F. E. Barth, Martin Wagner, Jan Münch, Sandra Heller and Alexander Kleger	SARS-CoV-2 infects and replicates in cells of the human endocrine and exocrine pancreas	article	nature metabolism	2021	3		149	165	37		https://doi.org/10.1038/s42255-021-00347-1				
	scridine				中村達	アクリジン化合物の化学と生理作用 中	review	化学と生物	1966	4	10	514	526	13		https://www.ismag.e.jst.go.jp/article/kagakuoseibutsu/1962/4/10/4_10_514/article/				
	tocilizumab				Xiaoling Xu, View ORCID ProfileMingfeng Han, Tianyan Li, Wei Sun, View ORCID ProfileDongsheng Wang, Binqing Fu, Yonggang Zhou, Xiaohu Zheng, View ORCID ProfileYun Yang, Xiyong Li, Xiaohua Zhang, Aijun Pan, and Haiming Wei	Effective treatment of severe COVID-19 patients with tocilizumab	article	Proceedings of the National Academy of Sciences of the United States of America	2020	117	20	10970	10975	5			https://doi.org/10.1073/pnas.2005615117			
	tocilizumab				Dr Nicolas Frey PharmD Dr Susan Grange PhD Dr Thasia Woodworth MD	Population Pharmacokinetic Analysis of Tocilizumab in Patients With Rheumatoid Arthritis	article	The Journal of Clinical Pharmacology	2013	50	7	754	766	12	https://doi.org/10.1177/0091270012009127	https://doi.org/10.1177/0091270012009127 0091270012009350 0009350623 6237casas_token=15LkSVuRDAAA AAAA%2AIPSeufdi				

