READING LIST
(where full articles are not available, you may contact the authors for copies.)

Articles and Information on COVID-19

Free coverage of everything we know about the COVID-19 corona virus.
https://cen.acs.org/content/cen/sections/Tracking-the-novel-coronavirus.html?utm_source=Announcement&utm_medium=Member&utm_campaign=CEN;
https://pubs.acs.org/page/vi/chemistry_coronavirus_research?utm_source=pubs_content_marketing&utm_medium=email&utm_campaign=0420_MFH_PUBS_0320_MFH_CoronavirusThirdEmail&ref=pubs_content_marketing

COVID-19 Open Research Dataset (CORD-19), A Free Open Resource for the Global Research Community.
https://pages.semanticscholar.org/coronavirus-research

The Great Influenza: The Story of the Deadliest Pandemic in History
https://www.amazon.com/Great-Influenza-Deadliest-Pandemic-History/dp/0143036491


A Highly Conserved Cryptic Epitope in the Receptor Binding Domains of SARS-CoV-2 and SARS-CoV. *Science* 3 Apr 2020. Ian A. Wilson group, The Skaggs Inst. for Chemical Biology, The Scripps Research Institute, La Jolla, CA [X-ray crystal structure of SARS patient-derived immunoglobulin binds to an allosteric site (not ACE2 binding site); implications for possible design of neutralizing antibodies]. https://science.sciencemag.org/content/early/2020/04/02/science.abb7269


Drug Targets/Lead Molecules to Potentially Treat COVID-19 Virus: *ACS Cent. Sci.* 2020, 6, 3, 315-331. https://doi.org/10.1021/acscentsci.0c00272

Protein Mapping Points to 69 potential COVID-19 Treatments. *C&EN News*, 2020 March 30 issue. Protein mapping points to 69 potential COVID-19 treatments. Many are FDA-approved drugs that could be repurposed.

The FDA-approved Drug Ivermectin Inhibits the Replication of SARS-CoV-2 in Vitro. *Antiviral Research* 2020, in press. https://doi.org/10.1016/j.antiviral.2020.104787, early release. From Monash University, Wagstaff group. Ivermectin inhibits replication in SARS-CoV-2 infected Vero cells at 5 µM. And I stress, I don’t endorse ivermectin as a viable antiviral; it has previously been shown to “limit infection" of several RNA viruses, in vitro, e.g. dengue, influenza, West Nile, but not Zika. Very preliminary.

Broad-Spectrum In Vitro Activity and In Vivo Efficacy of the Antiviral Protein Griffithsin against Emerging Viruses of the Family *Coronaviridae*. *J. Virology*, 2010, 84 (5) 2511-
2521; DOI: 10.1128/JVI.02322-09; https://jvi.asm.org/content/84/5/2511. The lead author is Barry O’Keefe, current ASP President.


Are Patients with Hypertension and Diabetes Mellitus at Increased Risk for COVID-19 Infection? Lancet letter: concerns about vulnerability to COVID-19 of patients w/upregulated ACE2 (e.g., treatment with bp-lowering drugs that are ACE inhibitors) DOI:10.1016/S2213-2600(20)30116-8

Natural Products Drug Discovery. The names are given of key authors or ASP Fellows who are corresponding or co-authors for relevant articles.

1 March 2020 special issue of JNP in honor of Jon Clardy. The following link provides access to abstracts of all the articles, many of which are authored by ASP members. https://pubs.acs.org/toc/jnpdf/83/3; note two short reviews by colleagues who have worked w/Jon: DOI:10.1021/acs.jnatprod.9b01237 and DOI:10.1021/acs.jnatprod.9b01086


3 Retrospective Analysis of Natural Products Provides Insights for Future Discovery Trends. PNAS, 2017, 114, 5601-5606; perspective on where we are, as a field, in NP discovery, in terms of numbers and structural novelty. DOI:10.1073/pnas.1614680114 [Gerwick]


7 Discovery of Microbial Natural Products by Activation of Silent Biosynthetic Gene Clusters. Nature Rev. Microbiol., 2015,13, 509-23. DOI:10.1038/nrmicro3496. [Lead Author: Challis]


13 Lactacystin: first-in-class proteasome inhibitor still excelling and an exemplar for future antibiotic research. *J. Antibiot.*, 2019, 72, 189 DOI:10.1038/s41429-019-0141-8 [Ōmura]


17 Improving Natural Product Research Translation: from Source to Clinical Trial; *FASEB Journal* 34, 41-64 (2020). dx.doi.org/10.1096/fj.201902143R [Pauli]


21 The Development of Botanical Drugs – A Review Pharmaceut Reg Affairs, 2019, 8:2. hilarispublisher.com/open-access/the-development-of-botanical-drugs--a-review.pdf [McChesney]