

## **coviki.org : The really good ideas and the bibliographic record on Covid-19 viral disease.**

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### **Abstract**

Coviki.org collects citations of the peer-reviewed literature on covid-19 disease and additional sources to keep the record of our knowledge, to facilitate fast-access knowledge on a given concept and to highlight unanticipated data on any related topic.

coviki.org serves the individual clinician, the individual scientist but it is basically intended to give public health leaders hints on policy-changing developments and ideas.

coviki.org is intended to give a platform to the unproven hypotheses years before experimental validation and commercial exploitation.

Database URL: <http://www.coviki.org>

### **Introduction**

COVID-19 disease is the bubonic plague of the current epoche with no established treatment, no working vaccination and an exaggerated public health response which stresses any kind of human social structure beyond its limits.

The peer-reviewed literature and ideas exceed the accessibility limit at about 80k publications.

COVID-19 has a facinating pathobiology being the most dispersed manifestation of a polytopic endothelial activation culminating into netosis-facilitated microthromboses up-to macroscopic embolic events, vasculitis look-alikes in any organ system visited, a special renal tissue reaction of whole or partial functional occlusion of the glomerular microvessels called collapsing FSGS. There is a basic immunological hyperactivation which often turns into a state of vast hypercytokinemia or into a so called multiinflammatory disease/ hemphagocytic lymphohistiocytosis systemic disease. Current treatment concepts rank around supportive measures up-to ECMO and artificial heart, appliciation of convential drugs with assumed pathophysiological match and retargeted, save drugs with some in-vitro signals to support their use. New pharmacophores are screened and basic medicinal chemistry is expected to generate drugs which need traditional time-consuming development steps. Emerging concepts like synergistic viruses like parvovirus b19, calming down cellular hyperactivation at the trpm7 target (the nephrologists neglected cation), get complemented by recognising ancient neanderthals genome snippets or the growing acceptance of vitamin-d3 and all the others or the concept of multikinase inhibition.

Dealing with COVID-19 has sociopsychiatric implications, it gets anybody into isolation causing social COVID with medicinal neglect, social neglect, suicide, unemployment, economic catastrophe and, ultimately, famine and aggressive population movement.

Coviki.org aims to give access to contents by minimized topical mapping to match a topic field with further subspecification. Resolution as needed from 13 major topic areas into any single compound, cytokine, mutation as needed.

## Methods

All technical measures applied have been developed or adapted by me for other related or nonspecific purposes. PubMed and PMCcentral were accessed by my <http://moremed.org> searchhouse (which uses ncbi's eutils and prints stable offline results with barcod39 marks). [1]

Search term is (covid19+OR+covid-19+OR+sars-cov2+OR+sars-cov-2+OR+2019-ncov+OR+2019ncov) AND/NOT (SSRN[JOUR]+OR+Res+Sq[JOUR]+OR+medrxiv[JOUR]+OR+biorxiv[JOUR]+OR+chemrxiv[JOUR]+OR+arxiv[JOUR])  
At only 6000 papers, selected items were put into the format used to publish my MedVIP literature collections. [2]

From there, every entry opened a common linkout box from which the paper could be accessed by multiple ways, and reformatted metadata in some useful formats for copy/pasting into other applications, concretely, from which a wikimedia template was copied and put into an ancient wikimedia 1.18.6 series wikipedia cms into its final location, first into a mirror page of the topic map, second step into specified 'articles', third step subsorting within the 'article'. In the course of this project, efficiency-enhancing measures were applied.

The way the user goes is to enter the e.g. 'heart' section to learn about cardiac manifestations. Currently, there is no searchable database by whole content (TIAB/FULL at article level), for which there is no need since PubMed and PubMed Central can be searched with moremed.org.

Whether a searchable db should be set up with contents from other sources like doaj or medrxiv, symposium abstracts or book chapters is a secondary question in case a scaleup would be efficient. A dedicated db space inside the same system is easy to implement.

I made a predecessor project 'Metatextbook of Medicine' which aligned about 100k free review articles to about 14k concepts with systematic automatization by tagging and latter complete transformation of the dataset. [3] Resources used then were off-line Visual Studio, PHP, MySQL.

All code and experience used here has its roots in that project. Little 'new' code

had to be developed.

Practically, a batch of PubMed or PMC is accessed, printed-out and most articles get tagged into one of 13 useful major categories. About some 4k pubmed numbers are copied into a .odt table by barcode reader, from there into a converter, then into another one and ultimately, 100 items blocks of wikitext are copied to the end of some major topics to which they are content-related awaiting subindexing from there.

Maintaining the collection is time-consuming and it would not be manageable by a physician in full-time clinical work.

Secondary evidence synthesis is possible by using the highly substructured topical collections, topics which cannot be filled with 'tocilizumab AND covid' search terms, especially in the humanities sections the user can be lead to appropriate outspoken ideas.

## **Results**

An index organized in the way a book's table of contents looks like has been structured by local concept similarity. The one-dimensional index has been reassembled into two complex tables constituting the website's homepage at <http://www.coviki.org>. Each entry opens the 'article' which per intention contains the citations, with regular and highlighted ones, with possible substructuring smaller topics and possible subindexing of bigger topics (i.e. candidate compounds -> hydroxychloroquine ).

At first draft, 2500 items are indexed into 60 main topics ordered into 11 concept fields. The estimated selected output from PubMed and PMC Central is 8000 items per 8th May 2020, and 3 months later we stand at babylic 40k to keep up. Ultimately, I could not keep up with the expected literature explosion, maintained areas pathobiology, pharmacology, infection prevention.

## **Discussion**

coviki.org has been born by another reason than to restructure and present the valid scientific record as a pure algorithmic database.

There was no dropbox where a late-breaking idea could be put - and from where it would go into the mind & concepts of those who are doing the work and even those who are controlling the work.

No public health official would look into social media to learn about a new idea,

nobody would put ideas into twitter or facebook setting himself at risk of being penalized and deprived from a resource which he needs in addition to his publication list while trying to climb up his academic career.

I had my personal idea, put it into a webpage, emailed it to Trump, Boris Johnson while on respirator, German, Swiss and Austrian health ministries, RKI, WHO and the result was nothing. I set a petition to the German Bundestag to operate an expert panel to check the valid ideas scratched from the crowd - thank you for nothing.

The bibliographic database is the backbone of coviki.org. Valid ideas from any source could be added at some risk of pushing disinformation. Even the latter could be a facilitator of thinking - if not useful, try to explain why.

So, coviki.org is the host of the ideas, pre-experimental, proven and failed. It is easily accessible, it is stable, and anything included is at least an accepted thought on a major problem of mankind.

In this war against contemporary civilization it is of utmost importance that anybody thinks out of his typically unrelated experience and proposes questions he by himself could never be able to answer.

Anything we will do can only be based on assumptions and high-speed rejections of single items i.e. a pharmacophore with unforeseen toxicity, getting patients resilient to infection and drugs, getting patients less-infective, getting filters electrostatic without nanotoxicity, its developing options and strategies and products without the ability to prove any in years-long trials.

A bin to keep up with the successes and failures, a dashboard of ideas, is that one piece I try to set up with this resource.

## References

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**Conflict of interests**

None.