

FRAUNHOFER INSTITUTE FOR ALGORITHMS AND SCIENTIFIC COMPUTING SCAI

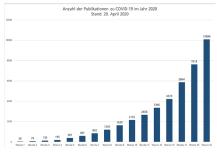
PRESS RELEASE

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Fraunhofer offers knowledge discovery tools to handle the flood of research data and information about SARS-CoV-2

With the new website "covid19-knowledgespace.de", Fraunhofer SCAI – together with Fraunhofer IME, Fraunhofer IAIS, the Information Center for Life Sciences ZBMED and other research partners – is opening a new kind of knowledge space with analysis tools and information on COVID-19. Central services in the COVID-19 Knowledge Space are the Biomedical Knowledge Miner "BiK>Mi" containing a highly curated cause-and-effect model for SARS-CoV-2, the literature mining environment "SCAIView", which has been optimized for COVID-19 text mining, and a special terminology representing major entities and concepts of COVID-19.



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The number of publications on

COVID-19 has grown sharply
since the beginning of the year.

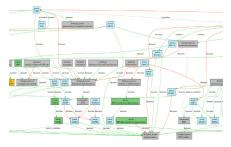
The scientific community worldwide has taken up the fight against SARS-CoV-2, which is also reflected by the sharp increase in the number of scientific publications on this subject.

More than 2000 new publications per week appeared in connection with COVID-19 at the end of April 2020. The information contained in these publications can provide decisive pointers to new active ingredients for drugs and cause-effect-relationships — if it is possible to maintain an overview. To this end, Fraunhofer SCAI has set up the new website "covid19-knowledgespace.de".

In a joint effort, the Fraunhofer institutes SCAI, IME, and IAIS, the Information Centre for Life Sciences (ZB MED), and other research partners have succeeded in providing the research community with a unique collection of analysis tools and data sources. Central offers are the Biomedical Knowledge Miner BiK>Mi, which gives access to a highly curated, knowledge based cause-and-effect model of COVID-19 and a search with the knowledge discovery service SCAIView in the research literature on COVID-19.



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BiK>Mi creates pathways of manually curated knowledge to provide users with the latest information on molecular interaction.

Prof. Dr. Martin Hofmann-Apitius

"We can refer to many years of experience in structuring and curating scientific data and knowledge in an indication area, however, with a focus on the field of neuroscience," says Prof. Dr. Martin Hofmann-Apitius, Head of the Bioinformatics department at Fraunhofer SCAI. Since the corona pandemic has kept the world busy, Hofmann-Apitius and his team have applied the tools and methods developed in numerous funded projects to publications on COVID-19. The result is the new website, which shows the new possibilities opened up by translational, computational biomedicine.

The work on the COVID-19 Knowledge Space was also supported by the Institute's spin-off company, "Causality BioModels" in Cochin, India.

The work on the COVID-19 Knowledge Space was also supported by the Institute's spin-off company, "Causality BioModels" in Cochin, India. The company, which was founded last year, created a comprehensive cause-and-effect network based on scientific literature on the new coronavirus, providing a comprehensive overview - the COVID-19 knowledge graph - on the mechanisms underlying the pathophysiology of the virus.

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