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VIRO Attack (Covid-19 Syndrome Mapping and Self-Assessment)

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Abstract: ***The new COVID-19 is caused by the virus SARS-CoV-2. The most likely ecological reservoirs for SARS-CoV-2 are bats, but it is believed that the virus jumped the species barrier to humans from another intermediate animal host. This intermediate animal host could be a domestic food animal, a wild animal, or a domesticated wild animal which has not yet been identified. WHO continues to collaborate with experts, Member States and other partners to identify gaps and research priorities for the control of COVID-19, and provide advice to countries and individuals on prevention measures. National food safety authorities have been following this event with the International Food Safety Authorities Network (INFOSAN) Secretariat to seek more information on the potential for persistence of the virus on foods traded internationally and the potential role of food in the transmission of the virus. Experiences from previous outbreaks of related coronaviruses, such as the Severe Acute Respiratory Syndrome coronavirus (SARS-CoV) and Middle East respiratory syndrome coronavirus (MERS-CoV) show that transmission through food consumption did not occur. To date, there have not been any reports of transmission of SARS-CoV-2 virus through food. However, concerns were expressed about the potential for these viruses to persist on raw foods of animal origin.***

Keywords: Boolean Function Clock Cycle Logic Gate Logic Element Dynamic Random Access Memory

I. INTRODUCTION

According to phylogenetic estimate all coronaviruses evolved from the most recent common ancestor that lived around 190 to 489 (with a mean of 293) million years ago.[132] The four genera split up around 2,400 to 3,300 years ago into bat and avian coronavirus ancestors. Bat coronavirus gave rise to species of *Alphacoronavirus* and *Betacoronavirus* that infect mammals, while avian coronavirus produced those of *Gammacoronavirus* and *Deltacoronavirus* that infect birds.[133] Zoonotic coronaviruses emerged recently. For instance, SARS-CoV was transmitted from bats in 1998 (4.08 years prior to the outbreak),[134] and diverged from bat coronavirus in around 1962. SARS-CoV-2 evolved from bat coronavirus in around 1948

II. EXISTING AND PROPOSED SYSTEM

The history of coronaviruses is a reflection of the discovery of the diseases caused by coronaviruses and identification of the viruses. It starts with the first report of a new type of upper-respiratory tract disease among chickens in North Dakota, US, in 1931. The causative agent was identified as a virus in 1933. By 1936, the disease and the virus were recognised as unique from other viral disease. They became known as infectious bronchitis virus (IBV), but later officially renamed as *Avian coronavirus*.

A new brain disease of mice (murine encephalomyelitis) was discovered in 1947 at Harvard Medical School in Boston. The virus causing the disease was called JHM (after Harvard pathologist John Howard Mueller). Three years later a new mouse hepatitis was reported from the National Institute for Medical Research in London. The causative virus was identified as mouse hepatitis virus (MHV).

In 1961, a virus was obtained from a school boy in Epsom, England, who was suffering from common cold. The sample designated B814 was confirmed as novel virus in 1965. New common cold viruses (assigned 229E) collected from medical students at the University of Chicago were also reported in 1966. Structural analyses of IBV, MHV, B18 and 229E using transmission electron microscopy revealed that they all belong to the same group of viruses. Making a crucial comparison in 1967, June Almeida and David Tyrrell invented the collective name coronavirus, as all those viruses were characterised by solar corona-like projections (called spikes) on their surfaces.

A. COVID-19 and Contact tracing

Bernard Stoecklin S, Rolland P, Silue Y, Mailles A, Campese C, Simondon A, et al. First cases of coronavirus disease 2019 (COVID-19) in France: surveillance, investigations and control measures, January 2020. Euro surveillance : bulletin Europeen sur les maladies transmissibles = European communicable disease bulletin. 2020;25(6). Epub 2020/02/20. doi: 10.2807/1560-7917.Es.2020.25.6.2000094. PubMed HTTPS://PUBMED.NCBI.NLM.NIH.GOV/32070465; PubMed Central PMCID: PMC7029452.

A novel coronavirus (severe acute respiratory syndrome coronavirus 2, SARS-CoV-2) causing a cluster of respiratory infections (coronavirus disease 2019, COVID-19) in Wuhan, China, was identified on 7 January 2020. The epidemic quickly disseminated from Wuhan and as at 12 February 2020, 45,179 cases have been confirmed in 25 countries, including 1,116 deaths. Strengthened surveillance was implemented in France on 10 January 2020 in order to identify imported cases early and prevent secondary transmission. Three categories of risk exposure and follow-up procedure were defined for contacts. Three cases of COVID-19 were confirmed on 24 January, the first cases in Europe. Contact tracing was immediately initiated. Five contacts were evaluated as at low risk of exposure and 18 at moderate/high risk. As at 12 February 2020, two cases have been discharged and the third one remains symptomatic with a persistent cough, and no secondary transmission has been identified. Effective collaboration between all parties involved in the surveillance and response to emerging threats is required to detect imported cases early and to implement adequate control measures.

The aim of national surveillance for COVID-19 is to enable public health authorities to reduce transmission of SARS-CoV-2, thereby limiting associated morbidity and mortality.

The objectives of COVID-19 surveillance are to: • Enable rapid detection, isolation, testing, and management of cases

1) Detect and contain clusters and outbreaks, especially among vulnerable populations
2) Identify, follow-up and quarantine contacts
3) Guide the implementation and adjustment of targeted control measures, while enabling safe resumption of economic and social activities
4) Evaluate the impact of the pandemic on health care systems and society
5) Monitor longer term epidemiologic trends and evolution of SARS-CoV-2 virus and monitor trends in covid-19 deaths
6) Contribute to the understanding of the co-circulation of SARS-CoV-2 virus, influenza and other respiratory viruses, and other pathogens.

III. SURVEILLANCE APPROACHES

Most countries need significantly strengthened surveillance capacities to rapidly identify and care for cases of COVID-19, trace and quarantine their contacts and monitor disease trends over time. Comprehensive national surveillance for COVID-19 will require the adaptation and reinforcement of existing national systems, where appropriate, and the scale-up of additional surveillance capacities, as needed. Digital technologies for rapid reporting, contact tracing and data management and analysis may support these capacities. Robust comprehensive surveillance, once in place, should be maintained even in areas where transmission has been suppressed or controlled, even if there are few or no cases. It is critical that new cases and clusters of SARS-CoV-2 infection be detected rapidly before outbreaks or widespread transmission occurs. Ongoing surveillance for COVID-19 is also important to understand longerterm epidemiological trends, such as incidence and mortality among different age groups, which population groups are at higher risk for severe disease and death and potential epidemiological changes over time. Key actions for comprehensive COVID-19 surveillance include: • Use, adaptation and strengthening of existing surveillance systems • Strengthen laboratory and testing capacities • Use, adaptation and enhancement of public health workforce to carry out case finding, contact tracing and testing • Include COVID-19 as a mandatory notifiable disease • Implement immediate reporting • Establish systems to monitor contact tracing activity. It is important to maintain routine syndromic surveillance for other infectious diseases, especially those caused by respiratory pathogens, such as influenza and respiratory syncytial virus, through surveillance for influenza-like-illness (ILI), severe acute respiratory infection (SARI), atypical pneumonia and unexplained fever, with sampling and laboratory testing of all or a subset of cases. This is critical for understanding trends in other diseases with similar presentations to guide appropriate public health preparedness and clinical management.

All are known that affected by a pandemic situation, so they all are facing problems in this time and also need a regular updates in this time about a covid-19 cases and our health status too.

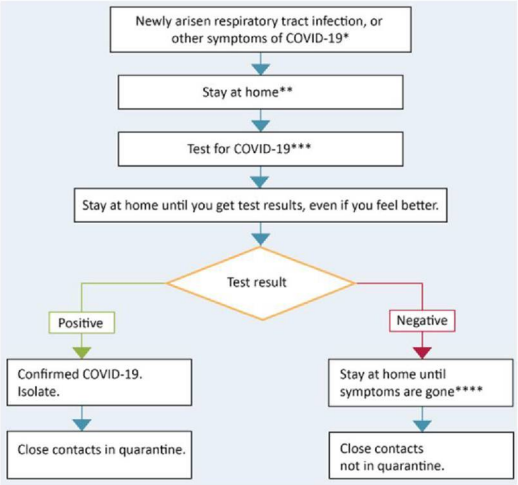
But in our current stage they not having an existing system that shows a every information related to covid-19 and also our health status.

They will not get every information in single site or website to know everything about coronavirus.

They don't have below mentioned features in one system

1) To identify, track and forecast outbreaks.
2) To identify, track and forecast outbreaks.
3) To create Chat Bot with multiple regional language supporting Conversational AI Techniques.

IV. ARCHITECTURE OF PROPOSED SYSTEM



A. Block diagram

Figure 4.1 shows that the principal parts or function of a relationship between them. Here firstly, the infection or other symptoms of covid-19 will be collected after that it says to stay at home and gives the instruction what else can do for the medication if else percentage is high the it says for test for covid-19 after that stay at home until you get the test result
even though if you feel better. After the test result have announced.
If the test is positive then it is confirmed that he is suffering from covid-19 and it says to close all the contacts with people and get to isolate yourself or get quarantine. If the result is negative the stay at home until symptoms are gone and though you can contact with the people and not to be in quarantine.
This system uses contact tracing to record details of all the people you may have come in contact with, as you go about your normal activities. If any one of them, at a later point in time, tests positive for COVID-19, you are immediately informed and proactive medical intervention is arranged for you.
For registration, the individual needs an Indian mobile number operated in India. Android Version 5 & above and iOS version 10.3 & above

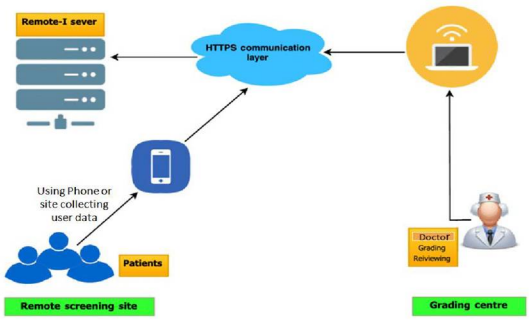


Figure 4.2:Flow chat

This figure 4.2 shows that in mobile the site which is directly connected to base where the data sets are being collected and its being analyzed this values are given by user. Based on that we will get report then that is approved by regulator means which and protocol is given that report can be seen by anyone. Corona virus pandemic is spreading in large numbers. Experts suggest that social distancing has been used for a long time as one of the methods to curb or reduce the spike in diseases and infectious illnesses.
Thus, apps and innovative solutions such as these, which promote the same idea can help authorities make the population aware and save lives. The app, which is a corona virus tracker of sorts works on the basis of contact tracing and can help a user identify possible corona virus 'hotspot' around his or her area.

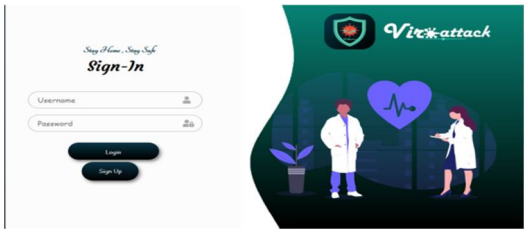
B. Advantages of Proposed System

1) If you make a first or a second degree contact with a COVID-19 positive person, then this system alerts you and gets you timely medical help. The self-assessment test also helps you in identifying possibilities of infection.

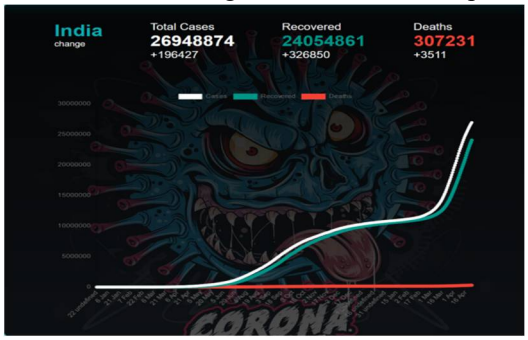
2) By early identification and prevention of potential risk of infection in you and others, this enables better safety for those around you, acting as a shield of protection for all your loved ones.

V. RESULTS

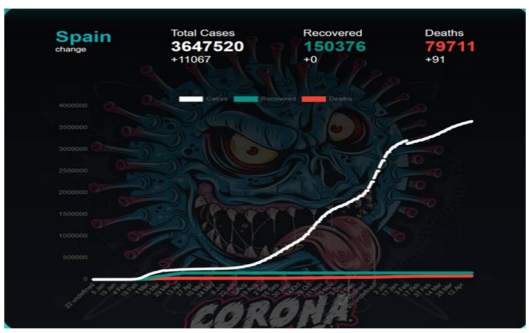
This is the Registration Page where we have sign -up by filling the following details of an user



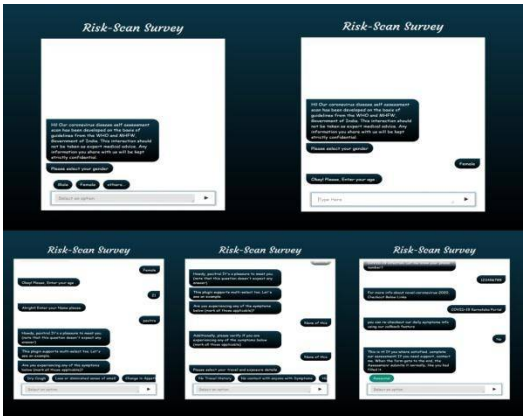
This is the Sign-In page of Viro attack ,where the user have to give his username and password to login in



.This is corona details in India ,here we have total positive cases ,recovered cases and number of deaths.This is represented in graph format.



This is corona details in Spain , here we total positive cases , recovered cases and number deaths. .This is represented in graph format



This is Risk-Scan Survey : here we are asking user or patient details and checking whether patient have any of the symptoms

VI. CONCLUSIONS AND FUTURE WORK

Currently, there are investigations conducted to evaluate the viability and survival time of SARS-CoV-2. In general, coronaviruses are very stable in a frozen state according to studies of other coronaviruses, which have shown survival for up to two years at -20°C. Studies conducted on SARS-CoV ad MERS-CoV indicate that these viruses can persist on different surfaces for up to a few days depending on a combination of parameters such as temperature, humidity and light. For example, at refrigeration temperature (4°C), MERS-CoV can remain viable for up to 72 hours. Current evidence on other coronavirus strains shows that while coronaviruses appear to be stable at low and freezing temperatures for a certain period, food hygiene and good food safety practices can prevent their transmission through food. Specifically, coronaviruses are thermolabile, which means that they are susceptible to normal cooking temperatures (70°C). Therefore, as a general rule, the consumption of raw or undercooked animal products should be avoided. Raw meat, raw milk or raw animal organs should be handled with care to avoid cross-contamination with uncooked foods.

1) Limit human-to-human transmission including reducing secondary infections among close contacts and health care workers, preventing transmission amplification events, and preventing further international spread from China*;
2) Identify, isolate and care for patients early, including providing optimized care for infected patients;
3) Identify and reduce transmission from the animal source;
4) Address crucial unknowns regarding clinical severity, extent of transmission and infection, treatment options, and accelerate the development of diagnostics, therapeutics and vaccines;
5) Communicate critical risk and event information to all communities and counter misinformation;
6) Minimize social and economic impact through multisectoral partnerships.

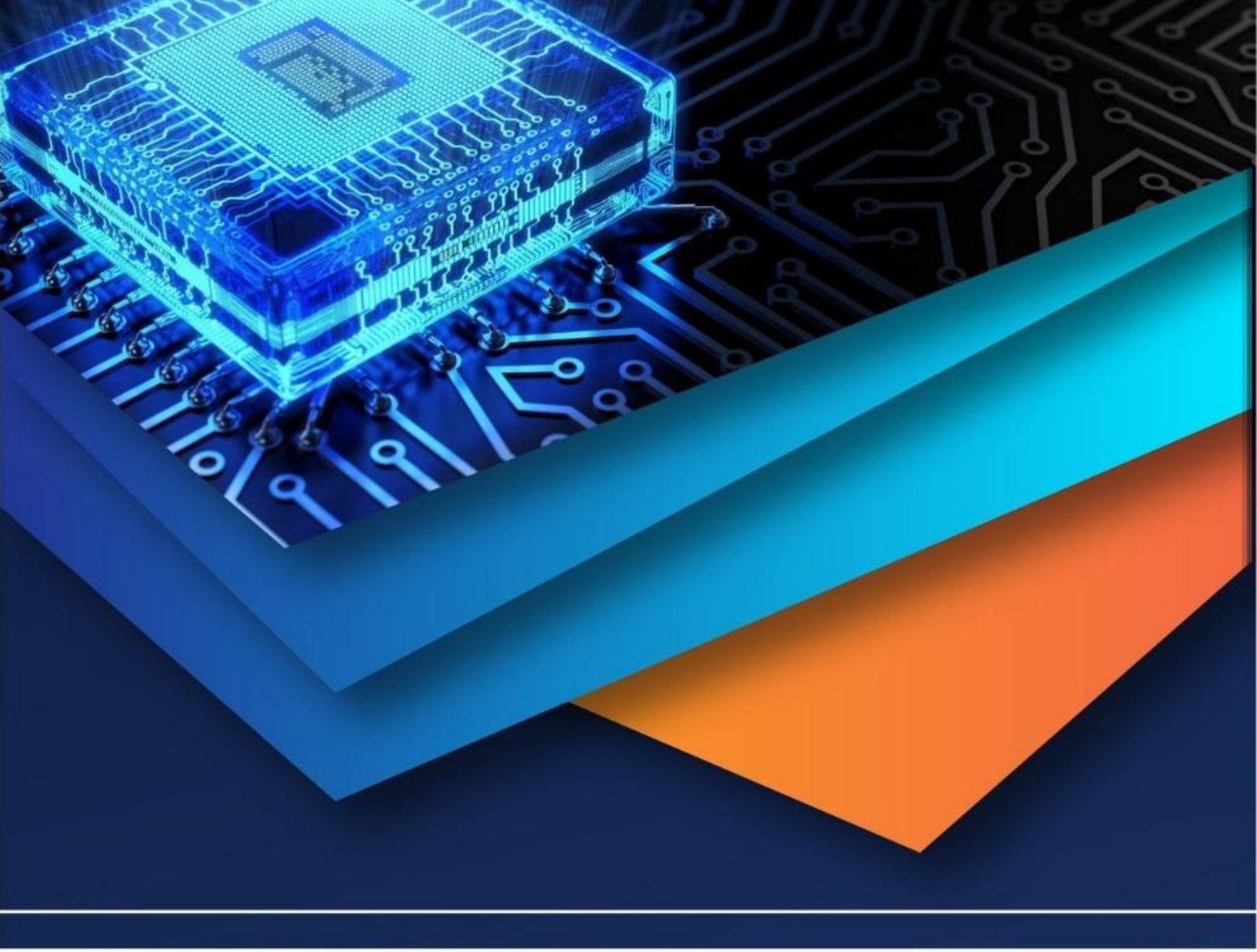
A. Recommendations And Advice For The Public

1) The basic principles to reduce the general risk of transmission of acute respiratory infections include the following:
2) Avoiding close contact with people suffering from acute respiratory infections.
3) Frequent hand-washing, especially after direct contact with ill people or their environment.
4) Avoiding unprotected contact with farm or wild animals.
5) People with symptoms of acute respiratory infection should practice cough etiquette (maintain distance, cover coughs and sneezes with disposable tissues or clothing, and wash hands).
6) Within health care facilities, enhance standard infection prevention and control practices in hospitals, especially in emergency departments.

REFERENCES

[1] McIntosh K (1974). "Coronaviruses: A Comparative Review". In Arber W, Haas R, Henle W, Hofschneider PH (eds.). Current Topics in Microbiology and Immunology / Ergebnisse der Mikrobiologie und Immunitätsforschung. Berlin, Heidelberg: Springer Berlin Heidelberg. pp. 85–129. doi:10.1007/978-3-642-65775-7_3. ISBN 978-3-642-65777-1.
[2] ^ Jump up to:a b c d e f Lalchhandama K (2020). "The chronicles of coronaviruses: the bronchitis, the hepatitis and the common cold". Science Vision. 20 (1): 43–53. doi:10.33493/scivis.20.01.04.
[3] ^ Jump up to:a b c d Tyrrell DA, Fielder M (2002). Cold Wars: The Fight Against the Common Cold. Oxford University Press. p. 96. ISBN 978-0-19-263285-2.
[4] ^ Schalk AF, Hawn MC (1931). "An apparently new respiratory disease of baby chicks". Journal of the American Veterinary Medical Association. 78 (3): 413–422.

[5] ^ Jump up to:[a] [b] Fabricant J (1998). "The early history of infectious bronchitis". Avian Diseases. 42 (4): 648–50. doi:10.2307/1592697. JSTOR 1592697. PMID 9876830.
[6] ^ Hudson CB, Beaudette FR (July 1932). "Infection of the Cloaca with the Virus of Infectious Bronchitis". Science. 76 (1958): 34. Bibcode:1932Sci....76...34H. doi:10.1126/science.76.1958.34-a. PMID 17732084.
[7] ^ Beaudette FR (1937). "Infectious laryngotracheitis". Poultry Science. 16 (2): 103–105. doi:10.3382/ps.0160103.
[8] ^ Jump up to:[a] [b] [c] Bushnell LD, Brandly CA (1933). "Laryngotracheitis in chicks". Poultry Science. 12 (1): 55–60. doi:10.3382/ps.0120055.
[9] ^ Beach JR (November 1931). "A Filtrable Virus, the Cause of Infectious Laryngotracheitis of Chickens". The Journal of Experimental Medicine. 54 (6): 809–16. doi:10.1084/jem.54.6.809. PMC 2180297. PMID 19869961.
[10] ^ Beach JR, Schalm OW (1936). "A filterable virus, distinct from that of laryngotracheitis, the cause of a respiratory disease of chicks". Poultry Science. 15 (3): 199–206. doi:10.3382/ps.0150199.
[11] ^ Beaudette, F.R.; Hudson, B.D. (1937). "Cultivation of the virus of infectious bronchitis". Journal of the American Veterinary Medical Association. 90 (1): 51–60.
[12] ^ Boursnell, M. E. G.; Brown, T. D. K.; Foulds, I. J.; Green, P. F.; Tomley, F. M.; Binns, M. M. (1987). "Completion of the sequence of the genome of the coronavirus avian infectious bronchitis virus". Journal of General Virology. 68 (1): 57–77. doi:10.1099/0022-1317-68-1-57. PMID 3027249.
[13] ^ Cheever FS, Daniels JB (September 1949). "A murine virus (JHM) causing disseminated encephalomyelitis with extensive destruction of myelin". The Journal of Experimental Medicine. 90 (3): 181–210. doi:10.1084/jem.90.3.181. PMC 2135905. PMID 18137294.
[14] ^ Theiler M (April 1937). "Spontaneous Encephalomyelitis of Mice, A New Virus Disease". The Journal of Experimental Medicine. 65 (5): 705–19. doi:10.1084/jem.65.5.705. PMC 2133518. PMID 19870629.
[15] ^ Bailey OT, Pappenheimer AM, Cheever FS, Daniels JB (August 1949). "A Murine Virus (JHM) Causing Disseminated Encephalomyelitis with Extensive Destruction of Myelin". The Journal of Experimental Medicine. 90 (3): 195–212. doi:10.1084/jem.90.3.195. PMC 2135909. PMID 19871701.
[16] ^ Pappenheimer AM (May 1958). "Pathology of infection with the JHM virus". Journal of the National Cancer Institute. 20 (5): 879–91. doi:10.1093/jnci/20.5.879. PMID 13539633.
[17] ^ Dick GW (1953). "Virus hepatitis of mice. I. Introductory". Schweizerische Zeitschrift für Pathologie und Bakteriologie. 16 (3): 293–7. doi:10.1159/000160248. PMID 13101709.
[18] ^ Gledhill AW, Andrewes CH (December 1951). "A hepatitis virus of mice". British Journal of Experimental Pathology. 32 (6): 559–68. PMC 2073177. PMID 14895796.
[19] ^ Gledhill AW (1953). "Virus hepatitis of mice. II. The complex aetiology". Schweizerische Zeitschrift für Pathologie und Bakteriologie. 16 (3): 298–301. doi:10.1159/000160249. PMID 13101710.
[20] ^ Morris, J. A. (1959). "A new member of hepato-encephalitis group of murine viruses". Experimental Biology and Medicine. 100 (4): 875–877. doi:10.3181/00379727-100-24810. PMID 13645751. S2CID 33553056.
[21] "RESEARCH into the common cold". Nature. 157 (3996): 726–727. June 1946. Bibcode:1946Natur.157R.726.. doi:10.1038/157726b0. PMID 20986431. S2CID 4112885.
[22] ^ Andrewes C (July 1966). "Twenty years' work on the common cold". Proceedings of the Royal Society of Medicine. 59 (7): 635–7. doi:10.1177/003591576605900727. PMC 1901004. PMID 5939517.
[23] ^ Andrewes CH, Worthington G (1959). "Some new or little-known respiratory viruses". Bulletin of the World Health Organization. 20 (2–3): 435–43. PMC 2537755. PMID 13651924.
[24] ^ Kerr JR, Taylor-Robinson D (2007). "David Arthur John Tyrrell CBE: 19 June 1925 - 2 May 2005". Biographical Memoirs of Fellows of the Royal Society. Royal Society. 53: 349–63. doi:10.1098/rsbm.2007.0014. PMID 18543468. S2CID 73300843.
[25] ^ Tyrrell DA, Bynoe ML, Hitchcock G, Pereira HG, Andrewes CH (January 1960). "Some virus isolations from common colds. I. Experiments employing human volunteers". Lancet. 1 (7118): 235–7. doi:10.1016/S0140-6736(60)90166-5. PMID 13840112.



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