Medicines & Healthcare products
Regulatory Agency

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By email: [redacted]

Friday, 19 January 2024

Dear [redacted]

FOI 23/901

Thank you for your request for information dated 21 November 2023, where you asked:

> *"As the MHRA to date continues to support recommendations for COVID-19 vaccines and boosters, we therefore request that you make available the following under the Freedom of Information Act:*
>
> ***1) Any and all documents that the MHRA relied upon to support your assurance of mRNA-based COVID-19 vaccine safety, with regards to carcinogenesis.***
>
> ***2) Any and all documents that the MHRA relied upon to support your assurance of mRNA-based COVID-19 vaccine safety, with regards to autoimmune disorders.***
>
> ***3) Any and all documents that the MHRA relied upon to support your assurance of mRNA-based COVID-19 vaccine safety, with regards to genotoxicity.***
>
> *If you have no such documents and this has not been considered, please provide us with a plausible reason why this has not been thoroughly investigated prior to COVID-19 vaccine approval."*

We would first like to apologise for an error in the earlier handling of your request, when we wrote to you on 19 December 2023 extending the deadline for response for public interest considerations. We wish to explain that this was based on the results of searches for relevant information conducted by one team with the MHRA, who had identified several documents relevant to your request and were proceeding to consider these for disclosure

and who required further time to consider the public interest as a qualified exemption applied (section 43(2). On the basis of these results, the extension was issued to you.

However, the scope of your request concerns information held in more than one location within the MHRA, and the results from other teams holding relevant information had not been taken into account when the extension to your request was issued. At this point, on 19 December 2023, we should have issued a refusal for your request in its entirety under section 12 of the FOI Act, rather than extend the time for response for further public interest considerations for only one part of the relevant information.

We recognise that this does not meet the requirements of section 10(1) of the FOIA, as we did not issue a full refusal notice within the statutory deadline. We apologise that this has led to our issuing a delayed response to you.

In accordance with section 17(5) of the FOI Act, we are refusing your request as section 12 applies. This is because the time needed to undertake the activities of determining all information within the scope of your request, and locating, retrieving and extracting that information exceeds the 24-hour 'appropriate limit' set out in the FOI Act. Although we are refusing your request, we provide advice and assistance below to assist you in making a new narrowed request.

To explain why section 12 applies in this case, we should first revisit the wording of your request. The full wording is set out above and we particularly note that you have specified that you require "*Any and all documents that the MHRA relied upon...*" We note that the Freedom of Information Act grants access to information rather than 'documents', and this means that your request captures all information on the topics you have specified, whether it forms a specific report on the subject or is held as it forms one part of a much broader document including additional information. This means that your request has an extremely broad scope; it requires us not simply to identify key information on the specified subject, but rather to fully comply with the wording of request, the relevant information must include every piece of information held by the public authority that falls within scope.

The request does not indicate a time frame for the information you are seeking but mentions that the relevant information "*continues to support recommendations".* Therefore, we consider the scope of the request to cover *'any and all information'* related to the three specified topics held throughout the lifecycle of the marketing authorisations of the mRNA COVID-19 vaccines to the present time. The two companies which hold marketing authorisations for mRNA vaccines in the UK are Moderna and Pfizer/BioNTech. However, we should note that there are several marketing authorisations for COVID-19 vaccines held by these companies for different variants of the SARS-CoV-2 virus and doses (for different age groups).

To explain the breadth of the information sought, we provide the following examples:

- In relation to carcinogenicity data (aside from pre-clinical carcinogenicity data which is not held for the mRNA vaccines), relevant information would be identified and retrieved from epidemiological studies. This would require retrieval and review of assessment reports created by the MHRA across the lifecycle of the products as well

as review of the files of clinical study literature held. The topic of carcinogenicity has also been considered and investigated within the topic of DNA integration, following the publication of a paper; we would need to retrieve documents and information related to this subject, including email correspondence.
    - Please note: The outcome/conclusion was that there is no evidence that mRNA from COVID-19 vaccines causes adverse effects through interaction with DNA.

- Because 'any and all documents' is such a broad request, our search would also need to check for any training materials for assessors on these topics in relation to mRNA vaccines, as well as the general topics of virology and SARS-CoV-2, which may have more broadly provided reassurances on relation to the vaccines and genotoxicity carcinogenicity.

- To retrieve information for all parts of your request, we would need to review a range of broader documents in order to retrieve and extract the relevant information within them; for the Pfizer COVID-19 vaccines and Moderna COVID-19 vaccines these include Periodic Safety Update Reports and Safety Summary Reports submitted following the roll out of these vaccines. Again, to ensure that all information meeting the scope of your request is retrieved, we would need to conduct a full archive search for emails. Full records would also need to be drawn from the Yellow Card database and reviewed to identify relevant information.

- There are a large number of autoimmune diseases, and many of these conditions were closely monitored as part of the MHRA's COVID-19 vaccine Pharmacovigilance strategy, with a number of assessment reports produced for the Commission on Human Medicines' COVID-19 Vaccine Benefit-Risk Expert Working Group (EWG) which will have included information from Yellow Card reports and company Summary Safety Reports. We note that advice provided by this EWG also corresponds to your description of the information you are seeking as information 'relied upon' by the MHRA.

Advice and assistance

Firstly, we can advise that data from the clinical trials is located in the clinical section Public Assessment Reports for the mRNA vaccines, including the listings of the number of subjects reporting adverse events by system organ class in tables. The below are a couple of examples of PARs for the mRNA vaccines. The MHRA products site can be searched for the other specific COVID-19 vaccines from Moderna and Pfizer/BioNTech. Many of these applications followed the Reliance Route, and therefore, the PARs produced by the EMA hold the scientific discussion / clinical information.

UKPAR_COVID_19_Vaccine_Moderna_07.04.2021_CMA_Reliance_PAR__-__final.pdf (publishing.service.gov.uk)
Comirnaty_bivalent_BA.1_PAR.pdf (publishing.service.gov.uk)

Regarding the part of the request concerning autoimmune disorders, there are two assessment reports focusing on a summary of these conditions which were taken for consideration to the COVID-19 Vaccine EWG: neurological autoimmune conditions and autoimmune disease flare-ups which we could consider for disclosure, subject to any exemptions under FOI. Otherwise, you would be advised to narrow your request to a small number of specific autoimmune conditions.

For Genotoxicity and carcinogenicity, Section 5.3 of the SmPC and the public assessment reports (PARs) for the regulation 174 and Marketing Authorisations describe the pre-clinical information considered by the MHRA. The studies associated with this information forms a possible avenue for refinement of your request; we suggest a refined request could be made for the listed reports in the table below. These relate to non-clinical studies of genotoxicity on the excipients in the Moderna COVID-19 vaccine, corresponding to part 3) of your request.

Study no.	Aim
9601035	The objective of this study was to determine the potential genotoxicity of Sunbright GM-020 (PEG 2K-DMG) and MC3, lipid excipients, using the bacterial mutation test.
9601036	The objective of this study was to determine the potential genotoxicity of Sunbright GM-020 (PEG 2K-DMG) and MC3, lipid excipients, using an in vitro mammalian cell micronucleus test in human peripheral blood lymphocytes.
9601567	The objective of this study was to determine the potential genotoxicity of SM-102, using the bacterial reverse mutation test.
9601568	The objective of this study was to determine the potential genotoxicity of SM-102, using an in vitro mammalian cell micronucleus test in human peripheral blood lymphocytes.
9800399	The objective of this study was to determine the potential genotoxicity of ZIKA mRNA in SM-102-containing lipid nanoparticles (mRNA-1706), when given by a single intravenous injection to rats using the bone marrow micronucleus test. In addition, the concentrations of ZIKA mRNA in the plasma were determined.
AF87FU.125012NG LPICH.BTL	The test article, NPI Luciferase mRNA in SM-102-Containing Lipid Nanoparticles, was evaluated for its clastogenic activity and/or disruption of the mitotic apparatus by detecting micronuclei in polychromatic erythrocytes (PCEs) cell in rat bone marrow.

We hope this advice will be useful for you. We apologise once again for the delay in responding your request.

If you are dissatisfied with the handling of your request, you have the right to ask for an internal review. Internal review requests should be submitted within two months of the date you receive this response and addressed to: info@mhra.gov.uk

Please remember to quote the reference number above in any future communications.

If you were to remain dissatisfied with the outcome of the internal review, you would have the right to apply directly to the Information Commissioner for a decision. Please bear in mind that the Information Commissioner will not normally review our handling of your request unless you have first contacted us to conduct an internal review. The Information Commissioner can be contacted at:

Information Commissioner's Office
Wycliffe House
Water Lane
Wilmslow
Cheshire
SK9 5AF

Or online via: https://ico.org.uk/make-a-complaint/foi-and-eir-complaints/foi-and-eir-complaints/

Yours sincerely,

MHRA Customer Service Experience
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