

May 7, 2019

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To Whom It May Concern:

Charles River Laboratories is pleased to submit input corresponding to the State of North Carolina's inquiries as follows:

1) Provide a narrative descriptions of each lab's experience in the type of toxicity assays to be provided to Chemours

Charles River Ashland (formerly known as WIL Research) is located in Ashland, OH and has been performing nonclinical safety testing for Sponsors for over 40 years. These tests cover a wide variety of endpoints including, but not limited to, general toxicology, immunotoxicology, developmental and reproductive toxicology, neurotoxicology, genetic toxicology, and safety pharmacology, and have been performed through many routes of administration (intravenous, oral gavage, dietary, subcutaneous, inhalation, etc.). The table below illustrates some of the studies we have performed in the last 5 years via the oral route (gavage and dietary). For each of these studies, appropriate range-finding studies of various lengths (5-day, 7-day, 2-week, etc.) would also have been performed.

Selected Study Experience

<u>Test System</u>	Number of 1-month Studies	Number of 3-month Studies
Mouse	32	18
Rat	86	76

 Provide a list of references for similar contract work that generated toxicity study data and what chemicals or classes of chemicals were tested for these applications, including whether such contract work was provided for Federal or state regulatory or research agencies;

Unfortunately, we cannot provide detailed information on chemicals, classes of chemicals, or customers due to nondisclosure agreements with our clients.

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3) Provide a list of certifications for the specified bioassays;

There is no certification program from either the EPA or the FDA for toxicity testing in animals. However, we do have extensive experience in multiple different study types (as noted previously).

Approximately half of the 3-month studies performed were performed for clients submitting to the EPA, or would have been run in general accordance with appropriate EPA/OECD guidelines, such as the OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents).

In recent past, the EPA was commonly requiring the OPPTS 870.7800 (Immunotoxicity) be performed for compounds, but more recently these requests are targeted based on the chemical class, rather than for all compounds. While we have not run any OPPTS 870.7800 guideline studies recently, we have conducted the following immunotox studies in that timeframe:

- 1 mouse AFC assay
- sRBC IgM ELISA for 2 rat studies (2 additional studies scheduled this year)
- rat splenic immunophenotyping assay on 7 studies (3 additional studies scheduled this year)
- rat peripheral blood immunophenotyping assay on 23 studies (4 additional studies scheduled this year)
- mouse peripheral blood immunophenotyping assay on 2 studies
- 4) Source of the testing animals

Rats and mice used for toxicology studies at Charles River Ashland are primarily received from the Charles River breeding facility in North Carolina.

5) Source of the testing material and how will it be characterized chemically for dosing

The test substance is often supplied by the Sponsor. The Sponsor typically provides documentation of the identity, strength, purity, composition, and stability for the test substance, often in the form of a Certificate of Analysis and/or other accompanying documentation.

For analysis of dose formulations, an appropriate analytical method is developed and validated for determination of the concentration of test substance in the appropriate vehicle (or matrix). For each in vivo study, samples of the dose formulations (including vehicle) are collected for subsequent chemical analysis to determine the presence/quantity of the test substance.

6) List any affiliation with DuPont, Chemours or any of their associated companies

Charles River is a publicly traded company whose customers include pharmaceutical, biotechnology, agrochemical companies from around the world. We support basic



research, discovery, safety and efficacy, clinical support and manufacturing. We are not affiliates of Chemours, DuPont or or any of their associated companies.

For more information, please visit https://www.criver.com/about-us.

We are appreciative for the opportunity to submit this input and look forward to supporting the State of North Carolina and Chemours in their future mammalian toxicology efforts. Please don't hesitate to let us know if you need additional details.

Sincerely,
-DocuSigned by:

Erica Lashley

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Site Director - Safety Assessment Ashland