# Inconsistencies in Variable Reporting and Methods in Larval Zebrafish Behavioral Assays

BN Hill[a], KN Britton[b], DL Hunter[c], JK Olin[c], M Lowery[c], JM Hedge[c], BR Knapp[a], KA Jarema[d], Z Rowson[a], S Padilla[c]

[a]ORISE at US EPA, ORD, CCTE, RTP, NC, USA [b]ORAU at US EPA, ORD, CCTE, RTP, NC, USA [c]US EPA, ORD, CCTE, RTP, NC, USA [d]US EPA, ORD, CPHEA, RTP, NC, USA

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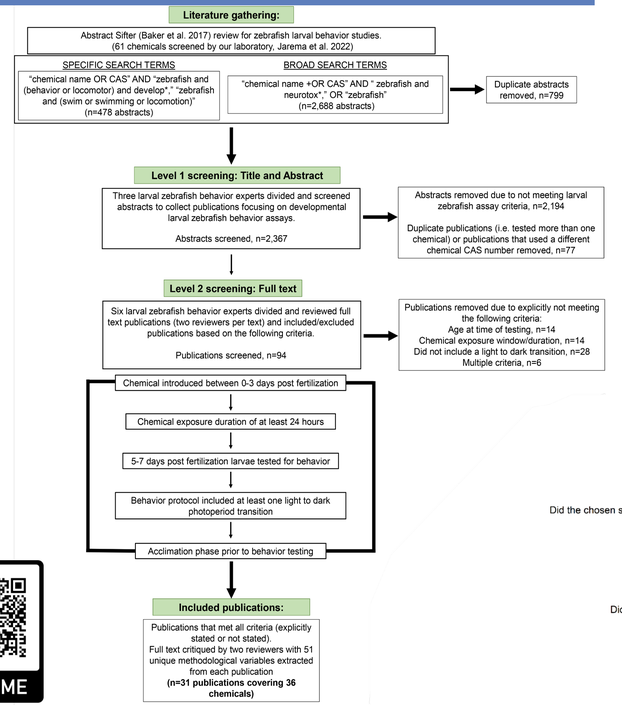
## BACKGROUND

Zebrafish (*Danio rerio*) represent an alternative vertebrate model for developmental neurotoxicity testing, but without a standardized protocol for larval behavioral assays, comparison of results among laboratories is challenging.

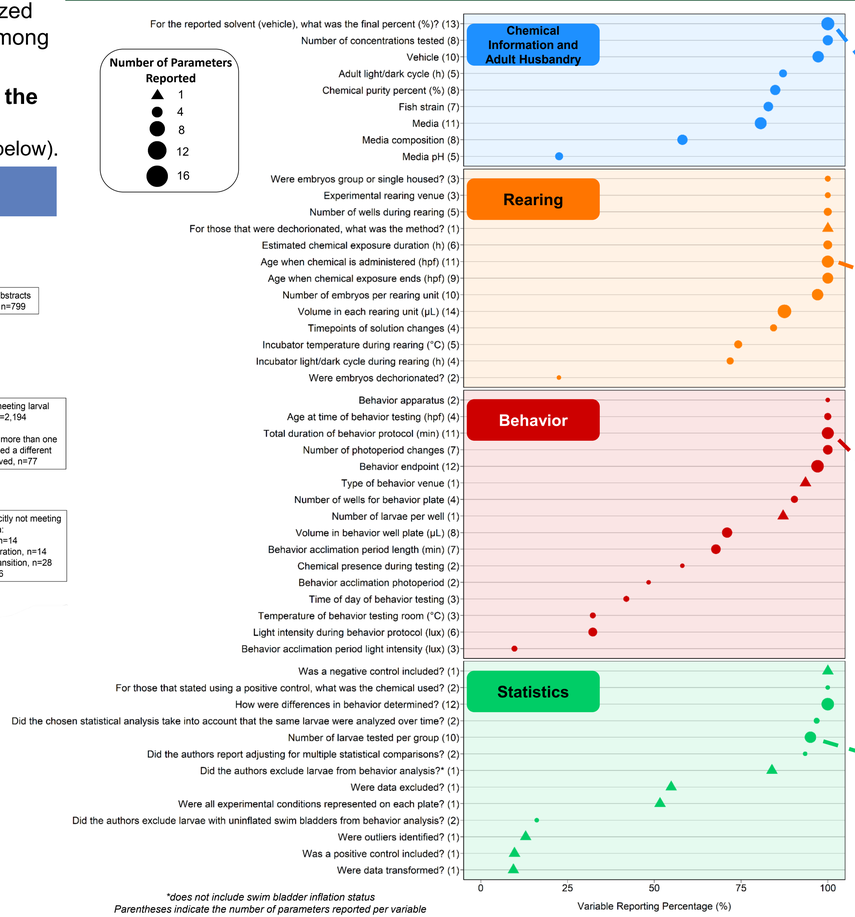
**We conducted an extensive literature review to evaluate the consistencies and transparency among protocols** (published in *Neurotoxicol Teratol.*, PMID:36758822, see QR code below).

## LITERATURE SEARCH STRATEGY



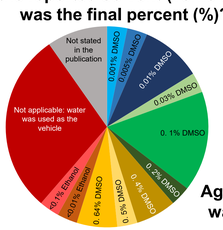

SCAN ME

## ROUGHLY 65% OF TARGETED VARIABLES WERE REPORTED IN AT LEAST 75% OF REVIEWED PUBLICATIONS

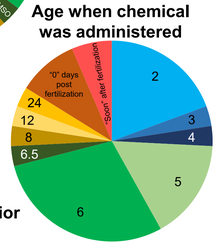



*does not include swim bladder inflation status
*Parentheses indicate the number of parameters reported per variable*

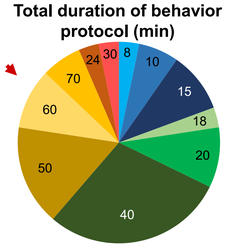
**For the reported solvent (vehicle), what was the final percent (%)?**



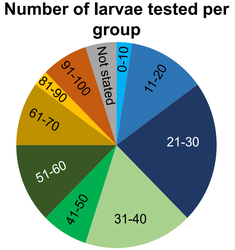

**Age when chemical was administered**



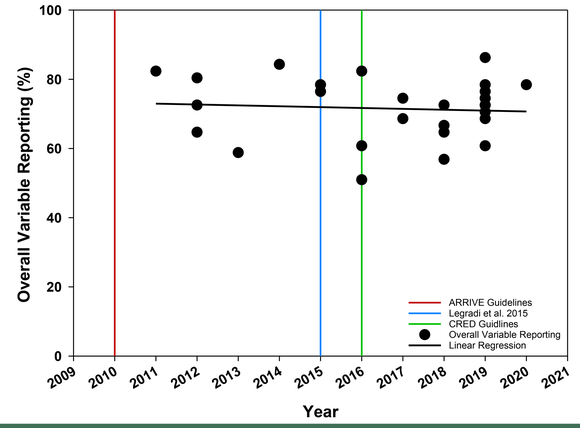

**Total duration of behavior protocol (min)**




**Number of larvae tested per group**




## NO INCREASE IN METHOD VARIABLE REPORTING OVER TIME DESPITE PUBLICATION OF REPORTING CRITERIA AND GUIDELINES




## INCREASED TRANSPARENCY WHEN DESCRIBING METHODS WILL AID IN PROTOCOL HARMONIZATION AND STANDARDIZATION IN ADDITION TO INCREASING REPRODUCIBILITY OF RESULTS.

## ACKNOWLEDGMENTS

[1] Baker et al. Abstract Sifter: a comprehensive front-end system to PubMed. F1000 Research 2017, 6(Chem Inf Sci):2164. We would like to thank A Farraj for their review of this presentation, K Tarpley for help with figures and all animal care staff that maintain our zebrafish colony.

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