

Review

# Are Adult Mosquito Control Products (Adulticides) Harmful? A Review of the Potential Human Health Impacts from Exposure to Naled and Dichlorvos (DDVP)

Daniel L. Mendoza <sup>1,\*</sup>, Robert K. D. Peterson <sup>2</sup>, Jane A. S. Bonds <sup>3</sup>, Gregory S. White <sup>4</sup> and Ary Faraji <sup>4</sup>

<sup>1</sup> Department of Atmospheric Sciences, University of Utah, 135 S 1460 E, Room 819, Salt Lake City, UT 84112, USA

<sup>2</sup> Department of Land Resources & Environmental Sciences, Montana State University, 330 Leon Johnson Hall, Bozeman, MT 59717, USA; bpeterson@montana.edu

<sup>3</sup> Bonds Consulting Group LLC, 3900 Wasp Street, Panama City Beach, FL 32408, USA; jasonbonds@gmail.com

<sup>4</sup> Salt Lake City Mosquito Abatement District, 2215 North 2200 West, Salt Lake City, UT 84116, USA; greg@slcmad.org (G.S.W.); ary@slcmad.org (A.F.)

\* Correspondence: daniel.mendoza@utah.edu

## Supplementary Information: Excluded Articles

### Animal Studies: 171

A total of 171 articles were excluded because their focus was on health outcomes of animal species and not humans. The studies looked at dichlorvos (DDVP) and naled impacts on animals including rats, zebrafish, bees, and snails among others. [1-171]

### Cell and Chemical Models: 44

Forty-four articles were excluded because their focus was on isolated cell and chemical models instead of a human. The studies generally quantified the impact of pesticides on specific biomarkers. [172-215]

### Combined Pesticide Species: 33

Thirty-three articles were excluded because their health outcomes were traced to either multiple pesticides working in tandem, primarily organophosphates and pyrethroids, or the study included other species, such as metals, and the health outcome could not be directly associated with naled or DDVP in isolation. [216-248]

### Deposition: 21

Twenty-one articles were excluded because they only quantified pesticide deposition or potential exposure without including health outcomes. [249-269]

### Disinsection: 24

Twenty-four articles were excluded because they discussed disinsection exposure such as pesticide pest strips and the use of pesticides as cleaning agents for aircraft or homes. The potential exposure is much higher than from ultra-low volume (ULV) mosquito control applications, so these articles are not in line with the goals of this study. [270-293]

### Does not exist: 2

Two articles were excluded because they could not be found. A) has a non-working DOI and it seems the journal no longer exists and B) cannot be found online anywhere.

A) [https://www.researchgate.net/publication/344615180\\_Analytical\\_and\\_Bio-Analytical\\_Method\\_Development\\_and\\_Validation\\_of\\_Dichlorvos\\_Pesticide\\_Using\\_RP-HPLC\\_Method](https://www.researchgate.net/publication/344615180_Analytical_and_Bio-Analytical_Method_Development_and_Validation_of_Dichlorvos_Pesticide_Using_RP-HPLC_Method)

B) [https://www.scopus.com/record/display.uri?eid=2-s2.0-85083923946&origin=inward&txGid=12c0eee3a7a038831d5ced4ec3ed607d&featureToggles=FEATURE\\_NEW\\_DOC\\_DETAILS\\_EXPORT:1](https://www.scopus.com/record/display.uri?eid=2-s2.0-85083923946&origin=inward&txGid=12c0eee3a7a038831d5ced4ec3ed607d&featureToggles=FEATURE_NEW_DOC_DETAILS_EXPORT:1)

### Equipment Safety: 6

**Citation:** Mendoza, D.L.; Peterson, R.K.D.; Bonds, J.A.S.; White, G.S.; Faraji, A. Are Adult Mosquito Control Products (Adulticides) Harmful? A Review of the Potential Human Health Impacts from Exposure to Naled and Dichlorvos (DDVP). *Pollutants* **2023**, *3*, 603–615. <https://doi.org/10.3390/pollutants3040039>

Academic Editors: Amin Mousavi Khaneghah, Paolo Pastorino and Flavio Rodrigues

Received: 11 October 2023

Revised: 14 November 2023

Accepted: 11 December 2023

Published: 13 December 2023



**Copyright:** © 2023 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

Six articles were excluded because they examined equipment and its associated safety levels or potential improvements (i.e., gloves) without considering either exposure or human health outcomes. [294-299]

Laboratory Experiments: 12

Twelve articles were excluded because they focused on laboratory experiments (i.e., quantifying half-life of naled in a laboratory setting) and did not include exposure or human health outcomes. [300-311]

Not English: 2

Two articles were excluded because no English version was found. [312,313]

Op-Ed: 3

Three references were op-eds (opinion/editorial) and were excluded from this study. [314-316]

Policy, Economics, and Risk Assessment: 14

Fourteen articles were excluded because their focus was on economics, policy, and/or risk assessment. These articles provided guidelines to prevent exposure without concrete values or health outcomes. [317-330]

Review: 8

Eight articles were excluded because they were reviews and not primary sources. [331-338]

Suicide and Abortion Related Poisoning: 14

Fourteen references focused on poisoning, either accidental or purposeful (i.e., for suicide or abortion purposes) and the doses discussed were intentionally elevated enough to be toxic and not in line with ULV mosquito control applications. [339-352]

## References

1. Ali, F.; Abdalla, M.H. Pathological changes in testes and liver of male albino rats after dermal exposure to DDVP insecticide. *The Journal of the Egyptian Public Health Association* **1992**, *67*, 565-578.
2. Alias, A.S.; Al-Zubaidy, M.H.; Mousa, Y.J.; Mohammad, F.K. Plasma and whole brain cholinesterase activities in three wild bird species in Mosul, IRAQ: In vitro inhibition by insecticides. *Interdisciplinary Toxicology* **2011**, *4*, 144.
3. Altenhofen, S.; Nabinger, D.D.; Bitencourt, P.E.R.; Bonan, C.D. Dichlorvos alters morphology and behavior in zebrafish (*Danio rerio*) larvae. *Environmental Pollution* **2019**, *245*, 1117-1123.
4. Amarasekare, K.G.; Edelson, J. Effect of temperature on efficacy of insecticides to differential grasshopper (Orthoptera: Acrididae). *Journal of Economic Entomology* **2004**, *97*, 1595-1602.
5. Atiş, S.; Çömelekoğlu, Ü.; Coşkun, B.; Özge, A.; Ersöz, G.; Talas, D. Electrophysiological and histopathological evaluation of respiratory tract, diaphragm, and phrenic nerve after dichlorvos inhalation in rats. *Inhalation Toxicology* **2002**, *14*, 199-215.
6. Baldissera, M.D.; Souza, C.F.; Descovi, S.N.; Zanella, R.; Prestes, O.D.; da Silva, A.S.; Baldisserotto, B. Organophosphate pesticide trichlorfon induced neurotoxic effects in freshwater silver catfish *Rhamdia quelen* via disruption of blood-brain barrier: Implications on oxidative status, cell viability and brain neurotransmitters. *Comparative Biochemistry and Physiology Part C: Toxicology & Pharmacology* **2019**, *218*, 8-13.
7. Barber, J.; Greer, M.; Coughlin, J. The effect of pesticide residue on caged mosquito bioassays. *Journal of the American Mosquito Control Association* **2006**, *22*, 469-472.
8. Barbieri, M.V.; Postigo, C.; Guillem-Argiles, N.; Monllor-Alcaraz, L.S.; Simionato, J.I.; Stella, E.; Barceló, D.; de Alda, M.L. Analysis of 52 pesticides in fresh fish muscle by QuEChERS extraction followed by LC-MS/MS determination. *Science of The Total Environment* **2019**, *653*, 958-967.
9. Bargar, T.A.; Anderson, C.; Sowers, A. Mortality and Cholinesterase Inhibition in Butterflies Following Aerial Naled Applications for Mosquito Control on the National Key Deer Refuge. *Archives of Environmental Contamination and Toxicology* **2020**, *79*, 233-245.

10. Bargar, T.A. Risk assessment for adult butterflies exposed to the mosquito control pesticide naled. *Environmental Toxicology and Chemistry* **2012**, *31*, 885-891.
11. Binukumar, B.; Bal, A.; Gill, K.D. Chronic dichlorvos exposure: microglial activation, proinflammatory cytokines and damage to nigrostriatal dopaminergic system. *Neuromolecular medicine* **2011**, *13*, 251-265.
12. Bird, S.B.; Gaspari, R.J.; Lee, W.J.; Dickson, E.W. Diphenhydramine as a protective agent in a rat model of acute, lethal organophosphate poisoning. *Academic Emergency Medicine* **2002**, *9*, 1369-1372.
13. Bist, R.; Chaudhary, B.; Bhatt, D. Defensive proclivity of bacoside A and bromelain against oxidative stress and AChE gene expression induced by dichlorvos in the brain of *Mus musculus*. *Scientific Reports* **2021**, *11*, 1-11.
14. Blair, D.; Dix, K.; Hunt, P.; Thorpe, E.; Stevenson, D.; Walker, A. Dichlorvos—a 2-year inhalation carcinogenesis study in rats. *Archives of Toxicology* **1976**, *35*, 281-294.
15. Bradway, D.E.; Shafik, T.M.; Lores, E.M. Comparison of cholinesterase activity, residue levels, and urinary metabolite excretion of rats exposed to organophosphorus pesticides. *Journal of Agricultural and Food Chemistry* **1977**, *25*, 1353-1358.
16. Bryant, S.M.; Rhee, J.W.; Thompson, T.M.; Aks, S.E. Pretreating rats with parenteral ophthalmic antimuscarinic agents decreases mortality from lethal organophosphate poisoning. *Academic Emergency Medicine* **2007**, *14*, 370-372.
17. Bui-Nguyen, T.M.; Baer, C.E.; Lewis, J.A.; Yang, D.; Lein, P.J.; Jackson, D.A. Dichlorvos exposure results in large scale disruption of energy metabolism in the liver of the zebrafish, *Danio rerio*. *BMC genomics* **2015**, *16*, 1-18.
18. Cao, J.; Zhang, X.; Wang, Q.; Jia, L.; Zhang, Y.; Zhao, X. Influence of flavonoid extracts from celery on oxidative stress induced by dichlorvos in rats. *Human & experimental toxicology* **2012**, *31*, 617-625.
19. Caroli, S.; Lotti, M. Delayed neurotoxicity caused by a single massive dose of dichlorvos to adult hens. *Toxicology Letters* **1981**, *9*, 157-159.
20. Castro, B.B.; Silva, C.; Macário, I.P.E.; Oliveira, B.; Goncalves, F.; Pereira, J.L. Feeding inhibition in *Corbicula fluminea* (OF Muller, 1774) as an effect criterion to pollutant exposure: perspectives for ecotoxicity screening and refinement of chemical control. *Aquatic Toxicology* **2018**, *196*, 25-34.
21. Celik, I.; Suzek, H. Effects of subacute exposure of dichlorvos at sublethal dosages on erythrocyte and tissue antioxidant defense systems and lipid peroxidation in rats. *Ecotoxicology and environmental safety* **2009**, *72*, 905-908.
22. Chattopadhyay, D.; Dighe, S.; Dube, D. Changes in toxicity of DDVP, DFP, and parathion in rats under cold environment. *Bulletin of Environmental Contamination and Toxicology* **1982**, *29*, 605-610.
23. Chaudhary, B.; Bist, R. Protective manifestation of bacoside A and bromelain in terms of cholinesterases, gamma-amino butyric acid, serotonin level and stress proteins in the brain of dichlorvos-intoxicated mice. *Cell Stress and Chaperones* **2017**, *22*, 371-376.
24. Chen, J.; Li, S.-S.; Fang, S.-M.; Zhang, Z.; Yu, Q.-Y. Olfactory dysfunction and potential mechanisms caused by volatile organophosphate dichlorvos in the silkworm as a model animal. *J. Hazard. Mater.* **2022**, *425*, 127940.
25. Choudhary, S.; Gill, K.D. Protective effect of nimodipine on dichlorvos-induced delayed neurotoxicity in rat brain. *Biochemical pharmacology* **2001**, *62*, 1265-1272.
26. Choudhary, S.; Joshi, K.; Gill, K.D. Possible role of enhanced microtubule phosphorylation in dichlorvos induced delayed neurotoxicity in rat. *Brain research* **2001**, *897*, 60-70.
27. Choudhary, S.; Verma, S.K.; Raheja, G.; Kaur, P.; Joshi, K.; Gill, K.D. The L-type calcium channel blocker nimodipine mitigates cytoskeletal proteins phosphorylation in dichlorvos-induced delayed neurotoxicity in rats. *Basic & clinical pharmacology & toxicology* **2006**, *98*, 447-455.
28. Chuang, Y.-Y.; Hou, R.F. Effectiveness of attract-and-kill systems using methyl eugenol incorporated with neonicotinoid insecticides against the oriental fruit fly (Diptera: Tephritidae). *Journal of economic entomology* **2008**, *101*, 352-359.

29. Coppage, D.L.; Matthews, E. Brain-acetylcholinesterase inhibition in a marine teleost during lethal and sublethal exposures to 1, 2-dibromo-2, 2-dichloroethyl dimethyl phosphate (Naled) in seawater. *Toxicology and Applied Pharmacology* **1975**, *31*, 128-133.
30. de Souza, P.R.; de Souza, K.S.; de Assis, C.R.D.; de Araújo, M.C.; Silva, K.C.C.; da Silva, J.d.F.X.; Ferreira, A.C.M.; da Silva, V.L.; Adam, M.L.; de Carvalho Jr, L.B. Acetylcholinesterase of mangrove oyster *Crassostrea rhizophorae*: A highly thermostable enzyme with promising features for estuarine biomonitoring. *Aquatic Toxicology* **2018**, *197*, 109-121.
31. Dean, B.; Doak, S.; Funnell, J. Genetic studies with dichlorvos in the host-mediated assay and in liquid medium using *Saccharomyces Cerevisiae*. *Archiv für Toxikologie* **1972**, *30*, 61-66.
32. Dean, B.; Thorpe, E. Studies with dichlorvos vapour in dominant lethal mutation tests on mice. *Archiv für Toxikologie* **1972**, *30*, 51-59.
33. Dean, B.; Thorpe, E. Cytogenetic studies with dichlorvos in mice and Chinese hamsters. *Archiv für Toxikologie* **1972**, *30*, 39-49.
34. Dean, B.; Blair, D. Dominant lethal assay in female mice after oral dosing with dichlorvos or exposure to atmospheres containing dichlorvos. *Mutation research* **1976**, *40*, 67-71.
35. Dési, I.; Nagymajtényi, L.; Papp, A. Experimental model studies of pesticide exposure. *Neurotoxicology* **1998**, *19*, 611-616.
36. Dési, I.; Nagymajtényi, L. Electrophysiological biomarkers of an organophosphorous pesticide, dichlorvos. *Toxicology letters* **1999**, *107*, 55-64.
37. Ding, W.; Wang, J.; Zhao, Z.; Li, X. Acute lethal and behavioral response of *Liposcelis bostrychophila* (Psocoptera: Liposcelididae) to DDVP. *Ying Yong Sheng tai xue bao= The Journal of Applied Ecology* **2003**, *14*, 1588-1590.
38. Du, L.; Li, S.; Qi, L.; Hou, Y.; Zeng, Y.; Xu, W.; Wang, H.; Zhao, X.; Sun, C. Metabonomic analysis of the joint toxic action of long-term low-level exposure to a mixture of four organophosphate pesticides in rat plasma. *Molecular BioSystems* **2014**, *10*, 1153-1161.
39. Dwivedi, N.; Bhutia, Y.D.; Kumar, V.; Yadav, P.; Kushwaha, P.; Swarnkar, H.; Flora, S. Effects of combined exposure to dichlorvos and monocrotophos on blood and brain biochemical variables in rats. *Human & experimental toxicology* **2010**, *29*, 121-129.
40. Dwivedi, N.; Flora, G.; Kushwaha, P.; Flora, S.J. Alpha-lipoic acid protects oxidative stress, changes in cholinergic system and tissue histopathology during co-exposure to arsenic-dichlorvos in rats. *Environmental toxicology and pharmacology* **2014**, *37*, 7-23.
41. Dwivedi, N.; Flora, S.J. Concomitant exposure to arsenic and organophosphates on tissue oxidative stress in rats. *Food and chemical toxicology* **2011**, *49*, 1152-1159.
42. Correll, M.E.L. Inhibition of carboxylesterases in SH-SY5Y human and NB41A3 mouse neuroblastoma cells by organophosphorus esters. *Journal of Toxicology and Environmental Health Part A* **1998**, *53*, 385-399.
43. England, D.C. Husbandry components in prenatal and perinatal development in swine. *Journal of Animal Science* **1974**, *38*, 1045-1049.
44. Forget, J.; Pavillon, J.; Menasria, M.; Bocquene, G. Mortality and LC50 Values for Several Stages of the Marine Copepod *Tigriopus brevicornis* (Müller) Exposed to the Metals Arsenic and Cadmium and the Pesticides Atrazine, Carbofuran, Dichlorvos, and Malathion. *Ecotoxicology and environmental safety* **1998**, *40*, 239-244.
45. Francis, B.M.; Metcalf, R.L.; Hansen, L.G. Toxicity of organophosphorus esters to laying hens after oral and dermal administration. *Journal of Environmental Science & Health Part B* **1985**, *20*, 73-95.
46. Frasco, M.F.; Fournier, D.; Carvalho, F.; Guilhermino, L. Does mercury interact with the inhibitory effect of dichlorvos on *Palaemon serratus* (Crustacea: Decapoda) cholinesterase? *Science of the total environment* **2008**, *404*, 88-93.

- 
47. Garcia, R.; Chung, K.; Key, P.; Burnett, L.; Coen, L.; DeLorenzo, M. Interactive effects of mosquito control insecticide toxicity, hypoxia, and increased carbon dioxide on larval and juvenile Eastern oysters and hard clams. *Archives of environmental contamination and toxicology* **2014**, *66*, 450–462.
  48. Gagne, F.; Trepanier, S.; Andre, C.; Gagnon, C. CURRENT TOPICS IN TOXICOLOGY.
  49. Gaspari, R.J.; Paydarfar, D. Respiratory failure induced by acute organophosphate poisoning in rats: effects of vagotomy. *Neurotoxicology* **2009**, *30*, 298–304.
  50. Gaspari, R.J.; Dunn, C. Dichlorvos exposure to the Kölliker-fuse nuclei is sufficient but not necessary for OP induced apnea. *Neurotoxicology* **2013**, *39*, 132–137.
  51. Gaspari, R.J.; Paydarfar, D. Dichlorvos-induced central apnea: effects of selective brainstem exposure in the rat. *Neurotoxicology* **2011**, *32*, 206–214.
  52. Georgi, J.; Fleming, W.; Hirth, R.; Cleveland, D. Preliminary investigation of the life history of *Filaroides hirthei* Georgi and Anderson, 1975. *The Cornell Veterinarian* **1976**, *66*, 309–323.
  53. Gu, Y.; Li, G.; Huang, C.; Liu, P.; Hu, G.; Wu, C.; Xu, Z.; Guo, X.; Liu, P. Dichlorvos poisoning caused chicken cerebrum tissue damage and related apoptosis-related gene changes. *Science of The Total Environment* **2021**, *783*, 147051.
  54. Gunay, N.; Kose, B.; Demiryurek, S.; Ceylan, N.O.; Sari, I.; Demiryurek, A.T. Protective effects of Y-27632 on acute dichlorvos poisoning in rats. *The American journal of emergency medicine* **2010**, *28*, 268–274.
  55. Gupta, S.C.; Siddique, H.R.; Saxena, D.K.; Chowdhuri, D.K. Hazardous effect of organophosphate compound, dichlorvos in transgenic *Drosophila melanogaster* (hsp70-lacZ): induction of hsp70, anti-oxidant enzymes and inhibition of acetylcholinesterase. *Biochimica et Biophysica Acta (BBA)-General Subjects* **2005**, *1725*, 81–92.
  56. Hagstrom, D.; Hirokawa, H.; Zhang, L.; Radic, Z.; Taylor, P.; Collins, E.-M.S. Planarian cholinesterase: in vitro characterization of an evolutionarily ancient enzyme to study organophosphorus pesticide toxicity and reactivation. *Archives of toxicology* **2017**, *91*, 2837–2847.
  57. Halbach, K.; Wagner, S.; Scholz, S.; Luckenbach, T.; Reemtsma, T. Elemental imaging (LA-ICP-MS) of zebrafish embryos to study the toxicokinetics of the acetylcholinesterase inhibitor naled. *Analytical and bioanalytical chemistry* **2019**, *411*, 617–627.
  58. Haley, T.J.; Farmer, J.; Harmon, J.; Dooley, K. Estimation of the LD1 and extrapolation of the LD0. 1 for five organophosphate pesticides. *Archives of Toxicology* **1975**, *34*, 103–109.
  59. Hamers, T.; Smit, M.G.; Murk, A.J.; Koeman, J.H. Biological and chemical analysis of the toxic potency of pesticides in rainwater. *Chemosphere* **2001**, *45*, 609–624.
  60. Harlin, K.; Dellinger, J. Retina, brain and blood cholinesterase levels in cats treated with oral dichlorvos. *Veterinary and human toxicology* **1993**, *35*, 201–203.
  61. Hazelwood, J.; Stefan, G.; Bowen, J. Motor unit irritability in Beagles Before and after exposure to cholinesterase inhibitors. *American Journal of Veterinary Research* **1979**, *40*, 852–856.
  62. Hirosawa, N.; Ueyama, J.; Kondo, T.; Kamijima, M.; Takagi, K.; Fujinaka, S.; Hirate, A.; Hasegawa, T.; Wakusawa, S. Effect of DDVP on urinary excretion levels of pyrethroid metabolite 3-phenoxybenzoic acid in rats. *Toxicology letters* **2011**, *203*, 28–32.
  63. Hoang, T.C.; Pryor, R.L.; Rand, G.M.; Frakes, R.A. Use of butterflies as nontarget insect test species and the acute toxicity and hazard of mosquito control insecticides. *Environmental Toxicology and Chemistry* **2011**, *30*, 997–1005.
  64. Hoang, T.C.; Rand, G.M. Acute toxicity and risk assessment of permethrin, naled, and dichlorvos to larval butterflies via ingestion of contaminated foliage. *Chemosphere* **2015**, *120*, 714–721.
  65. Hoang, T.; Rand, G. Mosquito control insecticides: A probabilistic ecological risk assessment on drift exposures of naled, dichlorvos (naled metabolite) and permethrin to adult butterflies. *Science of the total Environment* **2015**, *502*, 252–265.

66. Hou, Y.; Zeng, Y.; Li, S.; Qi, L.; Xu, W.; Wang, H.; Zhao, X.; Sun, C. Effect of quercetin against dichlorvos induced nephrotoxicity in rats. *Experimental and Toxicologic Pathology* **2014**, *66*, 211–218.
67. Hribar, L.J.; Murray, H.L.; McIntire, S.G.; Pruszyński, C.A. Effects of mosquito control adulticides on Sterile *Cochliomyia hominivorax* (Diptera: Calliphoridae). *Journal of Economic Entomology* **2018**, *111*, 959–966.
68. Huang, L.; Guo, X.; Liu, P.; Zhao, Y.; Wu, C.; Zhou, C.; Huang, C.; Li, G.; Zhuang, Y.; Cheng, S. Correlation between acute brain injury and brain metabonomics in dichlorvos-poisoned broilers. *J. Hazard. Mater.* **2022**, *422*, 126849.
69. Hutson, D.; Hoadley, E.C.; Pickering, B. The metabolic fate of [Vinyl-I-14C] dichlorvos in the rat after oral and inhalation exposure. *Xenobiotica* **1971**, *1*, 593–611.
70. Imam, A.; Oggunniyi, A.; Ibrahim, A.; Abdulmajeed, W.; Oyewole, L.; Lawan, A.; Sulaimon, F.; Adana, M.; Ajao, M. Dichlorvos induced Oxidative and Neuronal responses in rats: Mitigative Efficacy of *Nigella sativa* (black cumin). *Nigerian Journal of Physiological Sciences* **2018**, *33*, 83–88.
71. Jadhav, K.B.; Rajini, P.S. Evaluation of sublethal effects of dichlorvos upon *Caenorhabditis elegans* based on a set of end points of toxicity. *Journal of Biochemical and molecular Toxicology* **2009**, *23*, 9–17.
72. Jang, E.B.; Ramsey, A.; Carvalho, L.A. Performance of methyl eugenol+ matrix+ toxicant combinations under field conditions in Hawaii and California for trapping *Bactrocera dorsalis* (Diptera: Tephritidae). *Journal of economic entomology* **2013**, *106*, 727–734.
73. Julka, D.; Pal, R.; Gill, K. Neurotoxicity of dichlorvos: effect on antioxidant defense system in the rat central nervous system. *Experimental and molecular pathology* **1992**, *56*, 144–152.
74. Kaur, P.; Radotra, B.; Minz, R.W.; Gill, K. Impaired mitochondrial energy metabolism and neuronal apoptotic cell death after chronic dichlorvos (OP) exposure in rat brain. *Neurotoxicology* **2007**, *28*, 1208–1219.
75. Kleinstreuer, N.C.; Judson, R.S.; Reif, D.M.; Sipes, N.S.; Singh, A.V.; Chandler, K.J.; DeWoskin, R.; Dix, D.J.; Kavlock, R.J.; Knudsen, T.B. Environmental impact on vascular development predicted by high-throughput screening. *Environmental health perspectives* **2011**, *119*, 1596–1603.
76. Kobayashi, H.; Yuyama, A.; Imajo, S.; Matsusaka, N. Effects of acute and chronic administration of DDVP (dichlorvos) on distribution of brain acetylcholine in rats. *The Journal of Toxicological Sciences* **1980**, *5*, 311–319.
77. Kopecka-Pilarczyk, J. In vitro effects of pesticides and metals on the activity of acetylcholinesterase (AChE) from different tissues of the blue mussel, *Mytilus trossulus* L. *Journal of Environmental Science and Health Part B* **2009**, *45*, 46–52.
78. Kopecka-Pilarczyk, J. The effect of pesticides and metals on acetylcholinesterase (AChE) in various tissues of blue mussel (*Mytilus trossulus* L.) in short-term in vivo exposures at different temperatures. *Journal of Environmental Science and Health Part B* **2010**, *45*, 336–346.
79. Kuhar, T.P.; Short, B.D.; Krawczyk, G.; Leskey, T.C. Deltamethrin-incorporated nets as an integrated pest management tool for the invasive *Halyomorpha halys* (Hemiptera: Pentatomidae). *Journal of Economic Entomology* **2017**, *110*, 543–545.
80. Labade, C.P.; Jadhav, A.R.; Ahire, M.; Zinjarde, S.S.; Tamhane, V.A. Role of induced glutathione-S-transferase from *Helicoverpa armigera* (Lepidoptera: Noctuidae) HaGST-8 in detoxification of pesticides. *Ecotoxicology and environmental safety* **2018**, *147*, 612–621.
81. Laetz, C.A.; Baldwin, D.H.; Scholz, N.L. Sublethal neurotoxicity of organophosphate insecticides to juvenile coho salmon. *Aquatic Toxicology* **2020**, *221*, 105424.
82. Laguerre, C.; Sanchez-Hernandez, J.C.; Köhler, H.R.; Triebkorn, R.; Capowiez, Y.; Rault, M.; Mazzia, C. B-type esterases in the snail *Xeropicta derbentina*: an enzymological analysis to evaluate their use as biomarkers of pesticide exposure. *Environmental Pollution* **2009**, *157*, 199–207.
83. Lazarini, C.; Lima, R.; Guedes, A.; Bernardi, M. Prenatal exposure to dichlorvos: physical and behavioral effects on rat offspring. *Neurotoxicology and Teratology* **2004**, *26*, 607–614.

84. Lewis, J.A.; Szilagyi, M.; Gehman, E.; Dennis, W.E.; Jackson, D.A. Distinct patterns of gene and protein expression elicited by organophosphorus pesticides in *Caenorhabditis elegans*. *BMC genomics* **2009**, *10*, 1-21.
85. Lewis, J.A.; Gehman, E.A.; Baer, C.E.; Jackson, D.A. Alterations in gene expression in *Caenorhabditis elegans* associated with organophosphate pesticide intoxication and recovery. *Bmc Genomics* **2013**, *14*, 1-17.
86. Li, C.-x.; Guo, X.-x.; Zhang, Y.-m.; Xing, D.; Yan, T.; Wang, G.; Zhang, H.-d.; Zhao, T.-y. Identification of genes involved in pyrethroid-, propoxur-, and dichlorvos-insecticides resistance in the mosquitoes, *Culex pipiens* complex (Diptera: Culicidae). *Acta tropica* **2016**, *157*, 84-95.
87. Li, K.; Xu, Y.-Q.; Feng, L.; Liu, S.-S. Assessing the influence of the genetically modified factor on mixture toxicological interactions in *Caenorhabditis elegans*: Comparison between wild type and a SOD type. *Environmental Pollution* **2018**, *242*, 872-879.
88. Liu, Y.; Chen, T.; Li, M.-H.; Xu, H.-D.; Jia, A.-Q.; Zhang, J.-F.; Wang, J.-S. 1H NMR based metabolomics approach to study the toxic effects of dichlorvos on goldfish (*Carassius auratus*). *Chemosphere* **2015**, *138*, 537-545.
89. Macedo, M.B.; Cunha, E.O.; Dos Reis, A.; Machado, M.S.; de Campos, D.; Malysz, T.; Dallegrave, E. Morphometric Evaluation of the Recurrent Laryngeal Nerve of Wistar Rats Exposed to Pesticides. *Journal of Voice* **2021**.
90. Masoud, A.; Kiran, R.; Sandhir, R. Modulation of dopaminergic system and neurobehavioral functions in delayed neuropathy induced by organophosphates. *Toxicology Mechanisms and Methods* **2011**, *21*, 1-5.
91. Masoud, A.; Kiran, R.; Sandhir, R. Impaired mitochondrial functions in organophosphate induced delayed neuropathy in rats. *Cellular and molecular neurobiology* **2009**, *29*, 1245-1255.
92. Masoud, A.; Sandhir, R. Increased oxidative stress is associated with the development of organophosphate-induced delayed neuropathy. *Human & Experimental Toxicology* **2012**, *31*, 1214-1227.
93. McCollum, C.W.; Ducharme, N.A.; Bondesson, M.; Gustafsson, J.A. Developmental toxicity screening in zebrafish. *Birth Defects Research Part C: Embryo Today: Reviews* **2011**, *93*, 67-114.
94. Moretti, A.N.; Zerba, E.N.; Alzogaray, R.A. Behavioral and toxicological responses of *Rhodnius prolixus* and *Triatoma infestans* (Hemiptera: Reduviidae) to 10 monoterpene alcohols. *Journal of Medical Entomology* **2013**, *50*, 1046-1054.
95. Mullens, B.; Velten, R.; Hinkle, N.; Kuney, D.; Szijj, C. Acaricide resistance in northern fowl mite (*Ornithonyssus sylviarum*) populations on caged layer operations in southern California. *Poultry science* **2004**, *83*, 365-374.
96. Nigam, A.K.; Srivastava, N.; Rai, A.K.; Kumari, U.; Mittal, A.K.; Mittal, S. The first evidence of cholinesterases in skin mucus of carps and its applicability as biomarker of organophosphate exposure. *Environmental toxicology* **2014**, *29*, 788-796.
97. Nilufer Yonguc, G.; Dodurga, Y.; Kurtulus, A.; Boz, B.; Acar, K. Caspase 1, caspase 3, TNF-alpha, p53, and Hif1-alpha gene expression status of the brain tissues and hippocampal neuron loss in short-term dichlorvos exposed rats. *Molecular biology reports* **2012**, *39*, 10355-10360.
98. Okamura, A.; Kamijima, M.; Shibata, E.; Ohtani, K.; Takagi, K.; Ueyama, J.; Watanabe, Y.; Omura, M.; Wang, H.; Ichihara, G. A comprehensive evaluation of the testicular toxicity of dichlorvos in Wistar rats. *Toxicology* **2005**, *213*, 129-137.
99. Olmos, C.; Sandoval, R.; Rozas, C.; Navarro, S.; Wyneken, U.; Zeise, M.; Morales, B.; Pancetti, F. Effect of short-term exposure to dichlorvos on synaptic plasticity of rat hippocampal slices: Involvement of acylpeptide hydrolase and  $\alpha 7$  nicotinic receptors. *Toxicology and applied pharmacology* **2009**, *238*, 37-46.
100. Page, A.; Loeffler, J.; Hendrickson, H.; Huston, C.; DeVries, D. Metabolic fate of dichlorvos in swine. *Archiv für Toxikologie* **1972**, *30*, 19-27.
101. Oribabor, J.; Ikeogu, C. Acute toxicity of the Pesticides, Dichlorvos and Lindane against the African air-breathing catfish, *Heterobranchus longifilis*, Valenciennes, 1840 (Siluriformes: Clariidae). *Recent patents on biotechnology* **2016**, *10*, 272-278.

102. Pandey, A.; Saini, S.; Khatoon, R.; Sharma, D.; Narayan, G.; Kar Chowdhuri, D. Overexpression of hsp27 rescued neuronal cell death and reduction in life-and health-span in *Drosophila melanogaster* against prolonged exposure to dichlorvos. *Molecular Neurobiology* **2016**, *53*, 3179-3193.
103. Pauluhn, J.; Machemer, L.; Kimmerle, G. Effects of inhaled cholinesterase inhibitors on bronchial tonus and on plasma and erythrocyte acetylcholine esterase activity in rats. *Toxicology* **1987**, *46*, 177-190.
104. Pavlov, D.; Chuiko, G.; Gerassimov, Y.V.; Tonkopi, V. Feeding behavior and brain acetylcholinesterase activity in bream (*Abramis brama* L.) as affected by DDVP, an organophosphorus insecticide. *Comparative Biochemistry and Physiology Part C: Comparative Pharmacology* **1992**, *103*, 563-568.
105. Pinto Dias, J.C.; Zerba, E.N. The use of insecticide fumigant canister to protect insectarium and its residual effect against triatomine bugs, in laboratory conditions. *Revista da Sociedade Brasileira de Medicina Tropical* **2001**, *34*, 507-510.
106. Qi, L.; Cao, C.; Hu, L.; Chen, S.; Zhao, X.; Sun, C. Metabonomic analysis of the protective effect of quercetin on the toxicity induced by mixture of organophosphate pesticides in rat urine. *Human & Experimental Toxicology* **2017**, *36*, 494-507.
107. Raheja, G.; Dip Gill, K. Altered cholinergic metabolism and muscarinic receptor linked second messenger pathways after chronic exposure to dichlorvos in rat brain. *Toxicology and Industrial Health* **2007**, *23*, 25-37.
108. Raheja, G.; Gill, K.D. Calcium homeostasis and dichlorvos induced neurotoxicity in rat brain. *Molecular and cellular biochemistry* **2002**, *232*, 13-18.
109. Rajini, P.; Melstrom, P.; Williams, P.L. A comparative study on the relationship between various toxicological endpoints in *Caenorhabditis elegans* exposed to organophosphorus insecticides. *Journal of Toxicology and Environmental Health, Part A* **2008**, *71*, 1043-1050.
110. Rath, S.; Misra, B. Toxicological effects of dichlorvos (DDVP) on brain and liver acetylcholinesterase (AChE) activity of *Tilapia mossambica*, Peters. *Toxicology* **1981**, *19*, 239-245.
111. Ren, Z.; Zhang, X.; Wang, X.; Qi, P.; Zhang, B.; Zeng, Y.; Fu, R.; Miao, M. AChE inhibition: one dominant factor for swimming behavior changes of *Daphnia magna* under DDVP exposure. *Chemosphere* **2015**, *120*, 252-257.
112. Reuber, M.D. Carcinogenicity of dichlorvos. *Clinical Toxicology* **1981**, *18*, 47-84.
113. Richards, S.L.; White, A.V.; Byrd, B.D.; Reiskind, M.H.; Doyle, M.S. Evaluation of insecticide resistance in *Aedes albopictus* (Diptera: Culicidae) in North Carolina, 2017. *Journal of medical entomology* **2019**, *56*, 761-773.
114. Roney Jr, P.L.; Costa, L.G.; Murphy, S.D. Conditioned taste aversion induced by organophosphate compounds in rats. *Pharmacology Biochemistry and Behavior* **1986**, *24*, 737-742.
115. Ross, C.; Olsen, K.; Henry, M.; Pierce, R. Mosquito control pesticides and sea surface temperatures have differential effects on the survival and oxidative stress response of coral larvae. *Ecotoxicology* **2015**, *24*, 540-552.
116. Ryhänen, R.; Honkakoski, P.; Harri, M.; Ylitalo, P.; Hänninen, O. Effect of the cold environment on organophosphate toxicity and inhibition of cholinesterase activity. *General Pharmacology* **1988**, *19*, 741-745.
117. Saka, W.A.; Ayoade, T.E.; Akhigbe, T.M.; Akhigbe, R.E. Moringa oleifera seed oil partially abrogates 2, 3-dichlorovinyl dimethyl phosphate (Dichlorvos)-induced cardiac injury in rats: evidence for the role of oxidative stress. *Journal of Basic and Clinical Physiology and Pharmacology* **2021**, *32*, 237-246.
118. Sanchez-Hernandez, J.C.; Sanchez, B.M. Lizard cholinesterases as biomarkers of pesticide exposure: enzymological characterization. *Environmental Toxicology and Chemistry: An International Journal* **2002**, *21*, 2319-2325.
119. Sarin, S.; Gill, K.D. Biochemical Characterization of Dichlorvos-Induced Delayed Neurotoxicity in Rat. *IUBMB life* **2000**, *49*, 125-130.
120. Sarin, S.; Gill, K.D. Dichlorvos induced alterations in glucose homeostasis: possible implications on the state of neuronal function in rats. *Molecular and cellular biochemistry* **1999**, *199*, 87-92.



121. Sarmah, S.; Marrs, J.A. Zebrafish as a vertebrate model system to evaluate effects of environmental toxicants on cardiac development and function. *International journal of molecular sciences* **2016**, *17*, 2123.
122. Sato, H.; Ito, Y.; Hanai, C.; Nishimura, M.; Ueyama, J.; Kamijima, M. Non-linear model analysis of the relationship between cholinesterase activity in rats exposed to 2, 2-dichlorovinyl dimethylphosphate (dichlorvos) and its metabolite concentrations in urine. *Toxicology* **2021**, *450*, 152679.
123. Schleier III, J.J.; Peterson, R.K.; Macedo, P.A.; Brown, D.A. Environmental concentrations, fate, and risk assessment of pyrethrins and piperonyl butoxide after aerial ultralow-volume applications for adult mosquito management. *Environmental Toxicology and Chemistry: An International Journal* **2008**, *27*, 1063-1068.
124. Schmidt, G.; Schmidt, M.; Nenner, M.; Vetterlein, F. Effects of dichlorvos (DDVP) inhalation on the activity of acetylcholinesterase in the bronchial tissue of rats. *Archives of toxicology* **1978**, *42*, 191-198.
125. Schulz, H.; Nagymajtenyi, L.; Desi, I. Life-time exposure to dichlorvos affects behaviour of mature rats. *Human & experimental toxicology* **1995**, *14*, 721-726.
126. Schwab, B.W.; Richardson, R.J. Lymphocyte and brain neurotoxic esterase: Dose and time dependence of inhibition in the hen examined with three organophosphorus esters. *Toxicology and applied pharmacology* **1986**, *83*, 1-9.
127. Seawright, A.; Costigan, P. Some toxicity aspects of dichlorvos flea collars in cats. *Australian veterinary journal* **1977**, *53*, 509-514.
128. Sfara, V.; Zerba, E.N.; Alzogaray, R.A. Fumigant insecticidal activity and repellent effect of five essential oils and seven monoterpenes on first-instar nymphs of *Rhodnius prolixus*. *Journal of medical entomology* **2009**, *46*, 511-515.
129. Shiyovich, A.; Matot, R.; Elyagon, S.; Liel-Cohen, N.; Rosman, Y.; Shrot, S.; Kassirer, M.; Katz, A.; Etzion, Y. QT prolongation as an isolated long-term cardiac manifestation of dichlorvos organophosphate poisoning in rats. *Cardiovascular Toxicology* **2018**, *18*, 24-32.
130. Silva, C.; Nunes, B.; Nogueira, A.J.; Goncalves, F.; Pereira, J.L. In vitro test systems supporting the development of improved pest control methods: a case study with chemical mixtures and bivalve biofoulers. *Biofouling* **2016**, *32*, 1195-1208.
131. Sinha, C.; Shukla, G.S. Species variation in pesticide-induced blood-brain barrier dysfunction. *Human & experimental toxicology* **2003**, *22*, 647-652.
132. Siscar, R.; Varó, I.; Solé, M. Hepatic and branchial xenobiotic biomarker responses in *Solea* spp. from several NW Mediterranean fishing grounds. *Marine Environmental Research* **2015**, *112*, 35-43.
133. Şişman, T. Dichlorvos-induced developmental toxicity in zebrafish. *Toxicology and Industrial Health* **2010**, *26*, 567-573.
134. Skogerboe, T.; Smith, L.; Karle, V.; Derozier, C. The persistent efficacy of doramectin pour-on against biting and sucking louse infestations of cattle. *Veterinary parasitology* **2000**, *87*, 183-192.
135. Steelman, C.D.; Szalanski, A.L.; Trout, R.; McKern, J.A.; Solorzano, C.; Austin, J.W. Susceptibility of the bed bug *Cimex lectularius* L. (Heteroptera: Cimicidae) collected in poultry production facilities to selected insecticides. *Journal of agricultural and urban entomology* **2008**, *25*, 41-51.
136. Stengel, D.; Wahby, S.; Braunbeck, T. In search of a comprehensible set of endpoints for the routine monitoring of neurotoxicity in vertebrates: sensory perception and nerve transmission in zebrafish (*Danio rerio*) embryos. *Environ. Sci. Pollut. Res.* **2018**, *25*, 4066-4084.
137. Stengel, D.; Zindler, F.; Braunbeck, T. An optimized method to assess ototoxic effects in the lateral line of zebrafish (*Danio rerio*) embryos. *Comparative Biochemistry and Physiology Part C: Toxicology & Pharmacology* **2017**, *193*, 18-29.
138. Sun, K.-F.; Xu, X.-R.; Duan, S.-S.; Wang, Y.-S.; Cheng, H.; Zhang, Z.-W.; Zhou, G.-J.; Hong, Y.-G. Ecotoxicity of two organophosphate pesticides chlorpyrifos and dichlorvos on non-targeting cyanobacteria *Microcystis wesenbergii*. *Ecotoxicology* **2015**, *24*, 1498-1507.

139. Sunkaria, A.; Wani, W.Y.; Sharma, D.R.; Gill, K.D. Dichlorvos exposure results in activation induced apoptotic cell death in primary rat microglia. *Chemical research in toxicology* **2012**, *25*, 1762–1770.
140. Sunkaria, A.; Wani, W.Y.; Sharma, D.R.; Gill, K.D. Dichlorvos-induced cell cycle arrest and DNA damage repair activation in primary rat microglial cells. *Journal of neuroscience research* **2013**, *91*, 444–452.
141. Taylor, J.T.; Davis, E.; Dabisch, P.; Horsmon, M.; Li, M.; Mioduszewski, R. Alterations in autonomic function in the guinea pig eye following exposure to dichlorvos vapor. *Journal of ocular pharmacology and therapeutics* **2008**, *24*, 473–480.
142. Taylor, J.T.; Davis, E.; Dabisch, P.; Horsmon, M.; Matson, K.; Crouse, C.; Mioduszewski, R. Acute toxic effects of inhaled dichlorvos vapor on respiratory mechanics and blood cholinesterase activity in guinea pigs. *Inhalation toxicology* **2008**, *20*, 465–472.
143. Thorpe, E.; Wilson, A.; Dix, K.; Blair, D. Teratological studies with dichlorvos vapour in rabbits and rats. *Archiv für Toxikologie* **1972**, *30*, 29–38.
144. Timmons, E.; Chaklos, R.; Bannister, T.; Kaplan, H. Dichlorvos effects on estrous cycle onset in the rat. *Laboratory animal science* **1975**, *25*, 45–47.
145. Trivedi, S.P.; Ratn, A.; Awasthi, Y.; Kumar, M.; Trivedi, A. In vivo assessment of dichlorvos induced histological and biochemical impairments coupled with expression of p53 responsive apoptotic genes in the liver and kidney of fish, *Channa punctatus* (Bloch, 1793). *Comparative Biochemistry and Physiology Part C: Toxicology & Pharmacology* **2021**, *245*, 109032.
146. Varó, I.; Amat, F.; Navarro, J.C. Acute toxicity of dichlorvos to *Aphanius iberus* (Cuvier & Valenciennes, 1846) and its anti-cholinesterase effects on this species. *Aquatic toxicology* **2008**, *88*, 53–61.
147. Verma, S.K.; Raheja, G.; Gill, K.D. Role of muscarinic signal transduction and CREB phosphorylation in dichlorvos-induced memory deficits in rats: an acetylcholine independent mechanism. *Toxicology* **2009**, *256*, 175–182.
148. Volpe, L.S.; Biagioni, T.M.; Marquis, J.K. In vitro modulation of bovine caudate muscarinic receptor number by organophosphates and carbamates. *Toxicology and applied pharmacology* **1985**, *78*, 226–234.
149. Walker, A.; Blair, D.; Stevenson, D.; Chambers, P. An inhalational toxicity study with dichlorvos. *Archiv für Toxikologie* **1972**, *30*, 1–7.
150. Wang, H.; Li, S.; Qi, L.; Xu, W.; Zeng, Y.; Hou, Y.; Zhao, X.; Sun, C. Metabonomic analysis of quercetin against the toxicity of chronic exposure to low-level dichlorvos in rats via ultra-performance liquid chromatography–mass spectrometry. *Toxicology Letters* **2014**, *225*, 230–239.
151. Wang, H.-P.; Liang, Y.-J.; Sun, Y.-J.; Chen, J.-X.; Hou, W.-Y.; Long, D.-X.; Wu, Y.-J. <sup>1</sup>H NMR-based metabonomic analysis of the serum and urine of rats following subchronic exposure to dichlorvos, deltamethrin, or a combination of these two pesticides. *Chemico-biological interactions* **2013**, *203*, 588–596.
152. Wang, J.-J.; Zhang, J.-P.; He, L.; Zhao, Z.-M. Influence of long-term exposure to simulated acid rain on development, reproduction and acaricide susceptibility of the carmine spider mite, *Tetranychus cinnabarinus*. *Journal of Insect Science* **2006**, *6*, 19.
153. Wani, W.Y.; Gudup, S.; Sunkaria, A.; Bal, A.; Singh, P.P.; Kandimalla, R.J.; Sharma, D.R.; Gill, K.D. Protective efficacy of mitochondrial targeted antioxidant MitoQ against dichlorvos induced oxidative stress and cell death in rat brain. *Neuropharmacology* **2011**, *61*, 1193–1201.
154. Yadav, P.; Jadhav, S.E.; Kumar, V.; Kaul, K.K.; Pant, S.C.; Flora, S.J. Protective efficacy of 2-PAMCl, atropine and curcumin against dichlorvos induced toxicity in rats. *Interdisciplinary toxicology* **2012**, *5*, 1.
155. Yang, J.; Cao, J.; Sun, X.; Feng, Z.; Hao, D.; Zhao, X.; Sun, C. Effects of long-term exposure to low levels of organophosphorous pesticides and their mixture on altered antioxidative defense mechanisms and lipid peroxidation in rat liver. *Cell Biochemistry and Function* **2012**, *30*, 122–128.

156. Yang, J.; Sun, X.; Feng, Z.; Hao, D.; Wang, M.; Zhao, X.; Sun, C. Metabolomic analysis of the toxic effects of chronic exposure to low-level dichlorvos on rats using ultra-performance liquid chromatography–mass spectrometry. *Toxicology letters* **2011**, *206*, 306–313.
157. Yang, J.; Wang, H.; Xu, W.; Hao, D.; Du, L.; Zhao, X.; Sun, C. Metabolomic analysis of rat plasma following chronic low-dose exposure to dichlorvos. *Human & experimental toxicology* **2013**, *32*, 196–205.
158. Yu, Y.; Yang, A.; Zhang, J.; Hu, S. Maternal exposure to the mixture of organophosphorus pesticides induces reproductive dysfunction in the offspring. *Environmental toxicology* **2013**, *28*, 507–515.
159. Yu, Y.; Yang, A.-M.; Zhang, J.-H.; Hu, S.-K.; Yan, H. Synergistic effect of dichlorvos, dimethoate and malathion mixture on reproduction toxicity in male mice. *Zhonghua yu Fang yi xue za zhi [Chinese Journal of Preventive Medicine]* **2011**, *45*, 810–814.
160. Zeng, Y.; Qi, L.; Li, S.; Hou, Y.; Xu, W.; Wang, H.; Zhao, X.; Sun, C. A metabonomic analysis of the effect of quercetin on toxicity induced by chronic exposure to low-level dichlorvos in rat plasma. *Molecular BioSystems* **2014**, *10*, 2643–2653.
161. Zhong, H.; Hribar, L.; Daniels, J.; Feken, M.; Brock, C.; Trager, M. Aerial ultra-low-volume application of naled: impact on nontarget imperiled butterfly larvae (*Cyclargus thomasi bethunebakeri*) and efficacy against adult mosquitoes (*Aedes taeniorhynchus*). *Environmental entomology* **2010**, *39*, 1961–1972.
162. Zhong, H.; Latham, M.; Hester, P.; Frommer, R.; Brock, C. Impact of naled on honey bee *Apis mellifera* L. survival and productivity: aerial ULV application using a flat-fan nozzle system. *Archives of Environmental Contamination and Toxicology* **2003**, *45*, 216–220.
163. Zhong, H.; Latham, M.; Payne, S.; Brock, C. Minimizing the impact of the mosquito adulticide naled on honey bees, *Apis mellifera* (Hymenoptera: Apidae): Aerial ultra-low-volume application using a high-pressure nozzle system. *Journal of economic entomology* **2004**, *97*, 1–7.
164. Farag, M.R.; Alagawany, M.; Bilal, R.M.; Gewida, A.G.; Dhama, K.; Abdel-Latif, H.M.; Amer, M.S.; Rivero-Perez, N.; Zaragoza-Bastida, A.; Binnaser, Y.S. An overview on the potential hazards of pyrethroid insecticides in fish, with special emphasis on cypermethrin toxicity. *Animals* **2021**, *11*, 1880.
165. Ireland, D.; Zhang, S.; Bochenek, V.; Hsieh, J.-H.; Rabeler, C.; Meyer, Z.; Collins, E.-M.S. Differences in neurotoxic outcomes of organophosphorus pesticides revealed via multi-dimensional screening in adult and regenerating planarians. *Frontiers in Toxicology* **2022**, *4*, 948455.
166. Dos Santos, G.P.C.; de Assis, C.R.D.; Oliveira, V.M.; Cahu, T.B.; Silva, V.L.; Santos, J.F.; Yogui, G.T.; Bezerra, R.S. Acetylcholinesterase from the charru mussel *Mytella charruana*: Kinetic characterization, physicochemical properties and potential as in vitro biomarker in environmental monitoring of mollusk extraction areas. *Comparative Biochemistry and Physiology Part C: Toxicology & Pharmacology* **2022**, *252*, 109225.
167. Redondo-López, S.; León, A.C.; Jiménez, K.; Solano, K.; Blanco-Peña, K.; Mena, F. Transient exposure to sublethal concentrations of a pesticide mixture (chlorpyrifos–difenoconazole) caused different responses in fish species from different trophic levels of the same community. *Comparative Biochemistry and Physiology Part C: Toxicology & Pharmacology* **2022**, *251*, 109208.
168. Kunwar, P.S.; Sinha, A.K.; De Boeck, G.; Sapkota, K. Modulations of blood biochemical parameters of golden mahseer, *Tor putitora* following exposures to single and mixed organophosphate. *Comparative Biochemistry and Physiology Part C: Toxicology & Pharmacology* **2022**, *251*, 109207.
169. Reis, A.d.; Cunha, E.O.; Valle, M.T.C.; Machado, M.S.; Dallegrave, E. Effects of subchronic inhalation exposure to an organophosphorus insecticide compound containing dichlorvos on wistar rats' otoacoustic emissions. *Brazilian Journal of Otorhinolaryngology* **2022**, *88*, 28–35.

170. Sun, W.; Liu, H.; Qiao, A.; Jiang, T.; Li, J.; Wang, L.; Yang, L.; Huang, H.; Yan, X.; Yan, B. Transgenic RFP-RPS-30UbL strain of the nematode *Caenorhabditis elegans* as a biomonitor for environmental pollutants. *Environmental Toxicology* **2023**, *38*, 770-782.
171. Li, S.-S.; Fang, S.-M.; Chen, J.; Zhang, Z.; Yu, Q.-Y. Effects of short-term exposure to volatile pesticide dichlorvos on the olfactory systems in *Spodoptera litura*: Calcium homeostasis, synaptic plasticity and apoptosis. *Science of The Total Environment* **2023**, *864*, 161050.
172. Abaukaka, Y.A.; Sanusi, S.; Ozigi, K.A.; Malo, F.U. Assessment of the cytotoxic and mutagenic potential of dichlorvos (DDVP) using in silico classification model; a health hazard awareness in Nigeria. *Environmental Analysis, Health and Toxicology* **2020**, *35*.
173. Andersen, H.R.; Vinggaard, A.M.; Rasmussen, T.H.; Gjermansen, I.M.; Bonefeld-Jørgensen, E.C. Effects of currently used pesticides in assays for estrogenicity, androgenicity, and aromatase activity in vitro. *Toxicology and applied pharmacology* **2002**, *179*, 1-12.
174. Binukumar, B.; Bal, A.; Kandimalla, R.J.; Gill, K.D. Nigrostriatal neuronal death following chronic dichlorvos exposure: crosstalk between mitochondrial impairments,  $\alpha$  synuclein aggregation, oxidative damage and behavioral changes. *Molecular brain* **2010**, *3*, 1-20.
175. Binukumar, B.; Gupta, N.; Bal, A.; Gill, K.D. Protection of dichlorvos induced oxidative stress and nigrostriatal neuronal death by chronic Coenzyme Q10 pretreatment. *Toxicology and applied pharmacology* **2011**, *256*, 73-82.
176. Binukumar, B.; Gupta, N.; Sunkaria, A.; Kandimalla, R.; Wani, W.; Sharma, D.; Bal, A.; Gill, K.D. Protective efficacy of coenzyme Q10 against DDVP-induced cognitive impairments and neurodegeneration in rats. *Neurotoxicity research* **2012**, *21*, 345-357.
177. Casida, J.E. Organophosphate toxicology: safety aspects of nonacetylcholinesterase secondary targets. *Chem. Res. Toxicol.* **2004**, *17*, 983-998.
178. Ding, S.-J.; Carr, J.; Carlson, J.E.; Tong, L.; Xue, W.; Li, Y.; Schopfer, L.M.; Li, B.; Nachon, F.; Asojo, O. Five tyrosines and two serines in human albumin are labeled by the organophosphorus agent FP-biotin. *Chemical research in toxicology* **2008**, *21*, 1787-1794.
179. Guvenç, D.; Aksoy, A.; Das, Y.K.; Atmaca, E.; Yavuz, O. 3-nitrotyrosine levels in dichlorvos-induced neurotoxicity. *Arhiv za higijenu rada i toksikologiju* **2014**, *65*, 109-111.
180. He, F.; Wang, J.; Liu, Y.; Wang, X.; Cai, N.; Wu, C.; Gao, Q. Xuebijing injection induces anti-inflammatory-like effects and downregulates the expression of TLR4 and NF- $\kappa$ B in lung injury caused by dichlorvos poisoning. *Biomedicine & pharmacotherapy* **2018**, *106*, 1404-1411.
181. Hogberg, H.T.; Kinsner-Ovaskainen, A.; Hartung, T.; Coecke, S.; Bal-Price, A.K. Gene expression as a sensitive endpoint to evaluate cell differentiation and maturation of the developing central nervous system in primary cultures of rat cerebellar granule cells (CGCs) exposed to pesticides. *Toxicology and Applied Pharmacology* **2009**, *235*, 268-286.
182. Holth, T.; Tollefsen, K. Acetylcholine esterase inhibitors in effluents from oil production platforms in the North Sea. *Aquatic toxicology* **2012**, *112*, 92-98.
183. Kaur, G.; Dogra, N.; Singh, S. Health risk assessment of occupationally pesticide-exposed population of cancer prone area of Punjab. *Toxicological Sciences* **2018**, *165*, 157-169.
184. Krieger, R.; Dinoff, T.; Peterson, J. Protectiveness of Kleengard LP and Tyvek (R) Saranex (R) 23-P during mixing/loading and airblast application of dormant oil organophosphate insecticides in tree fruits. In Proceedings of Abstract of Papers of the American Chemical Society; pp. 111-AGRO.

185. Lee, C.-H.; Kamijima, M.; Kim, H.; Shibata, E.; Ueyama, J.; Suzuki, T.; Takagi, K.; Saito, I.; Gotoh, M.; Hibi, H. 8-Hydroxydeoxyguanosine levels in human leukocyte and urine according to exposure to organophosphorus pesticides and paraoxonase 1 genotype. *International archives of occupational and environmental health* **2007**, *80*, 217–227.
186. Lopes, D.F.C.; de Assis, C.R.D.; de Sant’Anna, M.C.S.; da Silva, J.F.; de Souza Bezerra, R.; Frédou, F.L. Brain acetylcholinesterase of three perciformes: from the characterization to the in vitro effect of metal ions and pesticides. *Ecotoxicology and Environmental Safety* **2019**, *173*, 494–503.
187. Lotti, M.; Moretto, A. Organophosphate-induced delayed polyneuropathy. *Toxicological reviews* **2005**, *24*, 37–49.
188. MacGregor, J.A.; Plunkett, L.M.; Youngren, S.H.; Manley, A.; Plunkett, J.B.; Starr, T.B. Humans appear no more sensitive than laboratory animals to the inhibition of red blood cell cholinesterase by dichlorvos. *Regulatory Toxicology and Pharmacology* **2005**, *43*, 150–167.
189. Mason, H. The recovery of plasma cholinesterase and erythrocyte acetylcholinesterase activity in workers after over-exposure to dichlorvos. *Occupational Medicine* **2000**, *50*, 343–347.
190. Mehl, A.; Rolseth, V.; Gordon, S.; Bjørås, M.; Seeberg, E.; Fonnum, F. Brain hypoplasia caused by exposure to trichlorfon and dichlorvos during development can be ascribed to DNA alkylation damage and inhibition of DNA alkyltransferase repair. *Neurotoxicology* **2000**, *21*, 165–173.
191. Michalovicz, L.T.; Kelly, K.A.; Sullivan, K.; O’Callaghan, J.P. Acetylcholinesterase inhibitor exposures as an initiating factor in the development of Gulf War Illness, a chronic neuroimmune disorder in deployed veterans. *Neuropharmacology* **2020**, *171*, 108073.
192. Moody, S.B.; Terp, D.K. Dystonic reaction possibly induced by cholinesterase inhibitor insecticides. *Drug intelligence & clinical pharmacy* **1988**, *22*, 311–312.
193. Moore, C.; Wilkinson, S.; Blain, P.; Dunn, M.; Aust, G.; Williams, F. Percutaneous absorption and distribution of organophosphates (chlorpyrifos and dichlorvos) following dermal exposure and decontamination scenarios using in vitro human skin model. *Toxicology letters* **2014**, *229*, 66–72.
194. Nagymajtényi, L.; Dési, I.; Lorencz, R. Neurophysiological markers as early signs of organophosphate neurotoxicity. *Neurotoxicology and Teratology* **1988**, *10*, 429–434.
195. Narayanan, K.B.; Ali, M.; Barclay, B.J.; Cheng, Q.; D’Abronzio, L.; Dornetshuber-Fleiss, R.; Ghosh, P.M.; Gonzalez Guzman, M.J.; Lee, T.-J.; Leung, P.S. Disruptive environmental chemicals and cellular mechanisms that confer resistance to cell death. *Carcinogenesis* **2015**, *36*, S89–S110.
196. Natoff, I. Influence of the route of exposure on the acute toxicity of cholinesterase inhibitors. *Arhiv za higijenu rada i toksikologiju* **1970**, *21*, 347–352.
197. Pancetti, F.; Olmos, C.; Dagnino-Subiabre, A.; Rozas, C.; Morales, B. Noncholinesterase effects induced by organophosphate pesticides and their relationship to cognitive processes: implication for the action of acylpeptide hydrolase. *Journal of Toxicology and Environmental Health, Part B* **2007**, *10*, 623–630.
198. Quistad, G.B.; Klintonberg, R.; Casida, J.E. Blood acylpeptide hydrolase activity is a sensitive marker for exposure to some organophosphate toxicants. *Toxicological Sciences* **2005**, *86*, 291–299.
199. Rodionov, G. Problem of studying the pathogenic effect of environmental chemical substances on the body. *Arkhiv Patologii* **1974**, *36*, 80–89.
200. Rudel, R.A.; Brody, J.G.; Spengler, J.D.; Vallarino, J.; Geno, P.W.; Sun, G.; Yau, A. Identification of selected hormonally active agents and animal mammary carcinogens in commercial and residential air and dust samples. *Journal of the Air & Waste Management Association* **2001**, *51*, 499–513.

- 
201. Simonsen, L.; Johnsen, H.; Lund, S.P.; Matikainen, E.; Midtgård, U.; Wennberg, A. Methodological approach to the evaluation of neurotoxicity data and the classification of neurotoxic chemicals. *Scandinavian journal of work, environment & health* **1994**, 1–12.
202. Sunkaria, A.; Sharma, D.R.; Wani, W.Y.; Gill, K.D. Attenuation of dichlorvos-induced microglial activation and neuronal apoptosis by 4-hydroxy TEMPO. *Molecular neurobiology* **2014**, 49, 163–175.
203. Sunkaria, A.; Sharma, D.R.; Wani, W.Y.; Gill, K.D. 4-Hydroxy TEMPO attenuates dichlorvos induced microglial activation and apoptosis. *ACS Chemical Neuroscience* **2014**, 5, 115–127.
204. Turton, N.; Heaton, R.A.; Ismail, F.; Roberts, S.; Nelder, S.; Phillips, S.; Hargreaves, I.P. The effect of organophosphate exposure on neuronal cell coenzyme Q10 status. *Neurochemical research* **2021**, 46, 131–139.
205. Van Bao, T.; Szabó, I.; Ruzicska, P.; Czeizel, A. Chromosome aberrations in patients suffering acute organic phosphate insecticide intoxication. *Humangenetik* **1974**, 24, 33–57.
206. Wang, Z.-J.; Liu, S.-S.; Huang, P.; Xu, Y.-Q. Mixture predicted no-effect concentrations derived by independent action model vs concentration addition model based on different species sensitivity distribution models. *Ecotoxicology and Environmental Safety* **2021**, 227, 112898.
207. Wani, W.Y.; Kandimalla, R.J.; Sharma, D.R.; Kaushal, A.; Ruban, A.; Sunkaria, A.; Vallamkondu, J.; Chiarugi, A.; Reddy, P.H.; Gill, K.D. Cell cycle activation in p21 dependent pathway: An alternative mechanism of organophosphate induced dopaminergic neurodegeneration. *Biochimica et Biophysica Acta (BBA)-Molecular Basis of Disease* **2017**, 1863, 1858–1866.
208. Wani, W.; Sunkaria, A.; Sharma, D.; Kandimalla, R.; Kaushal, A.; Gerace, E.; Chiarugi, A.; Gill, K. Caspase inhibition augments Dichlorvos-induced dopaminergic neuronal cell death by increasing ROS production and PARP1 activation. *Neuroscience* **2014**, 258, 1–15.
209. Dikilitas, M.; Kocyigit, A.; Bilinc, H.; Taskin, A. Genotoxic effects of low doses of pesticides on mononuclear leukocyte isolated from higher cells. *Fresenius Environmental Bulletin* **2012**, 21, 2833–2838.
210. Carlock, L.L.; Chen, W.; Gordon, E.B.; Killeen, J.C.; Manley, A.; Meyer, L.S.; Mullin, L.S.; Pendino, K.J.; Percy, A.; Sargent, D.E. Regulating and assessing risks of cholinesterase-inhibiting pesticides: divergent approaches and interpretations. *Journal of Toxicology and Environmental Health Part B: Critical Reviews* **1999**, 2, 105–160.
211. Bellin, J.; Chow, I. Biochemical effects of chronic low-level exposure to pesticides. *Research communications in chemical pathology and pharmacology* **1974**, 9, 325–337.
212. Oyagbemi, A.A.; Omobowale, T.O.; Ochigbo, G.O.; Asenuga, E.R.; Ola-Davies, O.E.; Ajibade, T.O.; Saba, A.B.; Adedapo, A.A. Polyphenol-rich fraction of *Parquetina nigrescens* mitigates dichlorvos-induced cardiorenal dysfunction through reduction in cardiac nitrotyrosine and renal p38 expressions in Wistar rats. *Journal of Dietary Supplements* **2018**, 15, 269–284.
213. Zhao, K.-X.; Zhang, M.-Y.; Yang, D.; Zhu, R.-S.; Zhang, Z.-F.; Hu, Y.-H.; Kannan, K. Screening of pesticides in serum, urine and cerebrospinal fluid collected from an urban population in China. *J. Hazard. Mater.* **2023**, 449, 131002.
214. Leili, M.; Ghafiuri-Khosroshahi, A.; Poorolajal, J.; Samiee, F.; Smadi, M.T.; Bahrami, A. Pesticide residues levels as hematological biomarkers—a case study, blood serum of greenhouse workers in the city of Hamadan, Iran. *Environ. Sci. Pollut. Res.* **2022**, 29, 38450–38463.
215. Sasikala, S.; Minu Jenifer, M.; Velavan, K.; Sakthivel, M.; Sivasamy, R.; Fenwick Antony, E. Predicting the relationship between pesticide genotoxicity and breast cancer risk in South Indian women in in vitro and in vivo experiments. *Scientific Reports* **2023**, 13, 1–17.
216. Chen, C.; Li, Y.; Chen, M.; Chen, Z.; Qian, Y. Organophosphorus pesticide residues in milled rice (*Oryza sativa*) on the Chinese market and dietary risk assessment. *Food Additives & Contaminants: Part A* **2009**, 26, 340–347.

217. Heudorf, U.; Angerer, J.; Drexler, H. Current internal exposure to pesticides in children and adolescents in Germany: urinary levels of metabolites of pyrethroid and organophosphorus insecticides. *International Archives of Occupational and Environmental Health* **2004**, *77*, 67-72.
218. Kawahara, J.; Yoshinaga, J.; Yanagisawa, Y. Dietary exposure to organophosphorus pesticides for young children in Tokyo and neighboring area. *Science of the total environment* **2007**, *378*, 263-268.
219. Leblanc, J.-C.; Malmauret, L.; GuÉrin, T.; Bordet, F.; Boursier, B.; Verger, P. Estimation of the dietary intake of pesticide residues, lead, cadmium, arsenic and radionuclides in France. *Food Additives & Contaminants* **2000**, *17*, 925-932.
220. Ohura, T.; Amagai, T.; Senga, Y.; Fusaya, M. Organic air pollutants inside and outside residences in Shimizu, Japan: levels, sources and risks. *Science of the Total Environment* **2006**, *366*, 485-499.
221. Lozowicka, B. Health risk for children and adults consuming apples with pesticide residue. *Science of the Total Environment* **2015**, *502*, 184-198.
222. Fox, M.A.; Tran, N.L.; Groopman, J.D.; Burke, T.A. Toxicological resources for cumulative risk: an example with hazardous air pollutants. *Regulatory Toxicology and Pharmacology* **2004**, *40*, 305-311.
223. Antwi, F.B.; Shama, L.M.; Peterson, R.K. Risk assessments for the insect repellents DEET and picaridin. *Regulatory Toxicology and Pharmacology* **2008**, *51*, 31-36.
224. Bennett, B.; Workman, T.; Smith, M.N.; Griffith, W.C.; Thompson, B.; Faustman, E.M. Characterizing the neurodevelopmental pesticide exposome in a children's agricultural cohort. *International Journal of Environmental Research and Public Health* **2020**, *17*, 1479.
225. Carr, W.C.; Iyer, P.; Gammon, D.W. A dietary risk assessment of the pyrethroid insecticide resmethrin associated with its use for West Nile virus mosquito vector control in California. *TheScientificWorldJOURNAL* **2006**, *6*, 279-290.
226. Geraghty, E.M.; Margolis, H.G.; Kjemtrup, A.; Reisen, W.; Franks, P. Correlation between aerial insecticide spraying to interrupt West Nile virus transmission and emergency department visits in Sacramento County, California. *Public Health Reports* **2013**, *128*, 221-230.
227. Hicks, S.D.; Wang, M.; Fry, K.; Doraiswamy, V.; Wohlford, E.M. Neurodevelopmental delay diagnosis rates are increased in a region with aerial pesticide application. *Frontiers in pediatrics* **2017**, *5*, 116.
228. Karpati, A.M.; Perrin, M.C.; Matte, T.; Leighton, J.; Schwartz, J.; Barr, R.G. Pesticide spraying for West Nile virus control and emergency department asthma visits in New York City, 2000. *Environmental health perspectives* **2004**, *112*, 1183-1187.
229. Lothrop, H.; Huang, H.; Lothrop, B.; Gee, S.; Goms, D.; Reisen, W. Deposition of pyrethrins and piperonyl butoxide following aerial ultra-low volume applications in the Coachella Valley, California. *Journal of the American Mosquito Control Association* **2007**, *23*, 213-219.
230. Macedo, P.A.; Schleier, J.J.; Reed, M.; Kelley, K.; Goodman, G.W.; Brown, D.A.; Peterson, R.K. Evaluation of efficacy and human health risk of aerial ultra-low volume applications of pyrethrins and piperonyl butoxide for adult mosquito management in response to West Nile virus activity in Sacramento County, California. *Journal of the American Mosquito Control Association* **2010**, *26*, 57-66.
231. Macedo, P.A.; Peterson, R.K.; Davis, R.S. Risk assessments for exposure of deployed military personnel to insecticides and personal protective measures used for disease-vector management. *Journal of Toxicology and Environmental Health, Part A* **2007**, *70*, 1758-1771.
232. O'Sullivan, B.C.-Y.; Lafleur, J.; Fridal, K.; Hormozdi, S.; Schwartz, S.; Belt, M.; Finkel, M. The effect of pesticide spraying on the rate and severity of ED asthma. *The American journal of emergency medicine* **2005**, *23*, 463-467.
233. Preftakes, C.J.; Schleier III, J.J.; Peterson, R.K. Bystander exposure to ultra-low-volume insecticide applications used for adult mosquito management. *International Journal of Environmental Research and Public Health* **2011**, *8*, 2142-2152.

234. Schleier III, J.J.; Peterson, R.K.; Irvine, K.M.; Marshall, L.M.; Weaver, D.K.; Preftakes, C.J. Environmental fate model for ultra-low-volume insecticide applications used for adult mosquito management. *Science of the Total Environment* **2012**, *438*, 72–79.
235. Schleier III, J.J.; Peterson, R.K. The mosquito ultra-low volume dispersion model for estimating environmental concentrations of insecticides used for adult mosquito management. *Journal of the American Mosquito Control Association* **2014**, *30*, 223–227.
236. Schleier, J.J.; Davis, R.S.; Barber, L.M.; MacEdo, P.A.; Peterson, R.K. A probabilistic risk assessment for deployed military personnel after the implementation of the "Leishmaniasis Control Program" at Tallil Air Base, Iraq. *Journal of medical entomology* **2014**, *46*, 693–702.
237. Schleier III, J.J.; Marshall, L.A.; Davis, R.S.; Peterson, R.K. A quantitative approach for integrating multiple lines of evidence for the evaluation of environmental health risks. *PeerJ* **2015**, *3*, e730.
238. Shelton, J.F.; Geraghty, E.M.; Tancredi, D.J.; Delwiche, L.D.; Schmidt, R.J.; Ritz, B.; Hansen, R.L.; Hertz-Picciotto, I. Neurodevelopmental disorders and prenatal residential proximity to agricultural pesticides: the CHARGE study. *Environmental health perspectives* **2014**, *122*, 1103–1109.
239. Chou, C.S.J.; Williams-Johnson, M. Health effects classification and its role in the derivation of minimal risk levels: neurological effects. *Toxicology and industrial health* **1998**, *14*, 455–471.
240. Rastogi, S.; Tripathi, S.; Ravishanker, D. A study of neurologic symptoms on exposure to organophosphate pesticides in the children of agricultural workers. *Indian journal of occupational and environmental medicine* **2010**, *14*, 54.
241. Beseler, C.; Stallones, L. Safety practices, neurological symptoms, and pesticide poisoning. *Journal of occupational and environmental medicine* **2003**, *45*, 1079–1086.
242. Flora, S.J. Arsenic and dichlorvos: Possible interaction between two environmental contaminants. *Journal of Trace Elements in Medicine and Biology* **2016**, *35*, 43–60.
243. Pujar, S.S.; Meghana, G. Qualitative Analysis of Blood and General Debilities in Farmers with Chronic Exposure to Pesticides-A Cross Sectional Study. *Medico-Legal Update* **2014**, *14*.
244. Cao, P.; Yang, D.; Zhu, J.; Liu, Z.; Jiang, D.; Xu, H. Estimated assessment of cumulative dietary exposure to organophosphorus residues from tea infusion in China. *Environmental health and preventive medicine* **2018**, *23*, 1–9.
245. Coker, E.; Gunier, R.; Bradman, A.; Harley, K.; Kogut, K.; Molitor, J.; Eskenazi, B. Association between pesticide profiles used on agricultural fields near maternal residences during pregnancy and IQ at age 7 years. *International journal of environmental research and public health* **2017**, *14*, 506.
246. Cavagna, G.; Locati, G.; Vigliani, E. Exposure of newborn babies to "Vapona" insecticide. *European journal of toxicology* **1970**, *3*, 49–57.
247. Hyland, C.; Bradshaw, P.T.; Gunier, R.B.; Mora, A.M.; Kogut, K.; Deardorff, J.; Sagiv, S.K.; Bradman, A.; Eskenazi, B. Associations between pesticide mixtures applied near home during pregnancy and early childhood with adolescent behavioral and emotional problems in the CHAMACOS study. *Environmental Epidemiology* **2021**, *5*.
248. Noppakun, K.; Juntarawijit, C. Association between pesticide exposure and obesity: A cross-sectional study of 20,295 farmers in Thailand. *F1000Research* **2021**, *10*.
249. Breidenbaugh, M.S.; Haagsma, K.A.; Walker, W.W.; Sanders, D.M. Post-Hurricane Rita mosquito surveillance and the efficacy of Air Force aerial applications for mosquito control in East Texas. *Journal of the American Mosquito Control Association* **2008**, *24*, 327–330.
250. Buczynska, A.; Szadkowska-Stanczyk, I. Identification of health hazards to rural population living near pesticide dump sites in Poland. *International journal of occupational medicine and environmental health* **2005**, *18*, 331–339.



251. Elliott, S.M.; Brigham, M.E.; Lee, K.E.; Banda, J.A.; Choy, S.J.; Gefell, D.J.; Minarik, T.A.; Moore, J.N.; Jorgenson, Z.G. Contaminants of emerging concern in tributaries to the Laurentian Great Lakes: I. Patterns of occurrence. *PLoS One* **2017**, *12*, e0182868.
252. Jones, A.S.; Cohen, D.; Alberdi, F.; Sanabria, A.; Clausell, N.; Roca, M.; Fionah, A.K.; Kumar, N.; Solo-Gabriele, H.M.; Zahran, E.M. Persistence of aerially applied mosquito-pesticide, Naled, in fresh and marine waters. *Science of The Total Environment* **2020**, *725*, 138391.
253. Zhang, Z.; Hong, H.; Zhou, J.; Yu, G. Occurrence and behaviour of organophosphorus insecticides in the River Wuchuan, southeast China. *Journal of Environmental Monitoring* **2002**, *4*, 498-504.
254. Gao, J.; Liu, L.; Liu, X.; Lu, J.; Hao, H.; Yuan, H.; Zhou, H. The organic contamination survey and health risk assessment of 16 source water reservoirs in Haihe River basin. *Water Science and Technology* **2012**, *65*, 998-1006.
255. Sang, C.; Yu, Z.; An, W.; Sørensen, P.B.; Jin, F.; Yang, M. Development of a data driven model to screen the priority control pesticides in drinking water based on health risk ranking and contribution rates. *Environment International* **2022**, *158*, 106901.
256. Davis, R.S.; Peterson, R.K.; Macedo, P.A. An ecological risk assessment for insecticides used in adult mosquito management. *Integrated Environmental Assessment and Management: An International Journal* **2007**, *3*, 373-382.
257. Kawahara, J.; Horikoshi, R.; Yamaguchi, T.; Kumagai, K.; Yanagisawa, Y. Air pollution and young children's inhalation exposure to organophosphorus pesticide in an agricultural community in Japan. *Environment international* **2005**, *31*, 1123-1132.
258. Bamiduro, G.J.; Kumar, N.; Solo-Gabriele, H.M.; Zahran, E.M. Persistence of aerially-sprayed naled in coastal sediments. *Science of The Total Environment* **2021**, *794*, 148701.
259. Koelmel, J.P.; Lin, E.Z.; Guo, P.; Zhou, J.; He, J.; Chen, A.; Gao, Y.; Deng, F.; Dong, H.; Liu, Y. Exploring the external exposome using wearable passive samplers-The China BAPE study. *Environmental Pollution* **2021**, *270*, 116228.
260. Onchoi, C.; Kongtip, P.; Nankongnab, N.; Chantanakul, S.; Sujirarat, D.; Woskie, S. Organophosphates in Meconium of Newborn Babies whose Mothers Resided in Agricultural Areas of Thailand. *The Southeast Asian journal of tropical medicine and public health* **2020**, *51*, 77.
261. Carney, R.M.; Husted, S.; Jean, C.; Glaser, C.; Kramer, V. Efficacy of aerial spraying of mosquito adulticide in reducing incidence of West Nile virus, California, 2005. *Emerging Infectious Diseases* **2008**, *14*, 747.
262. Elnaïem, D.-E.A.; Kelley, K.; Wright, S.; Laffey, R.; Yoshimura, G.; Reed, M.; Goodman, G.; Thiemann, T.; Reimer, L.; Reisen, W.K. Impact of aerial spraying of pyrethrin insecticide on *Culex pipiens* and *Culex tarsalis* (Diptera: Culicidae) abundance and West Nile virus infection rates in an urban/suburban area of Sacramento County, California. *Journal of Medical Entomology* **2008**, *45*, 751-757.
263. Qiu, J.; Wheeler, S.S.; Reed, M.; Goodman, G.W.; Xiong, Y.; Sy, N.D.; Ouyang, G.; Gan, J. When vector control and organic farming intersect: Pesticide residues on rice plants from aerial mosquito sprays. *Science of The Total Environment* **2021**, *773*, 144708.
264. Schleier, J.J.; Peterson, R.K. Deposition and air concentrations of permethrin and naled used for adult mosquito management. *Archives of environmental contamination and toxicology* **2010**, *58*, 105-111.
265. Bouvier, G.; Blanchard, O.; Momas, I.; Seta, N. Pesticide exposure of non-occupationally exposed subjects compared to some occupational exposure: a French pilot study. *Science of the total environment* **2006**, *366*, 74-91.
266. Kumar, A.; Gill, J.P.S.; Bedi, J.S.; Kumar, A. Pesticide residues in Indian raw honeys, an indicator of environmental pollution. *Environ. Sci. Pollut. Res.* **2018**, *25*, 34005-34016.
267. Correia, M.; Delerue-Matos, C.; Alves, A. Multi-residue methodology for pesticide screening in wines. *Journal of chromatography A* **2000**, *889*, 59-67.

268. Li, W.; Xu, K.; Wang, Y.; Lei, Z.; Zhang, Z. Investigation on the detection of pesticide residue in vegetable based on infrared spectroscopy. *Guang pu xue yu Guang pu fen xi= Guang pu* **2004**, *24*, 1202-1204.
269. Mathis, W.; Cloud, A.S.; Eyraud, M.; Miller, S.; Hamon, J. Initial field studies in Upper Volta with dichlorvos residual fumigant as a malaria eradication technique: 2. Entomological evaluation. *Bulletin of the World Health Organization* **1963**, *29*, 237.
270. Mick, D.; Gartin, T.; Long, K. A case report: occupational exposure to the insecticide naled. *Journal of the Iowa Medical Society* **1970**, *60*, 395-396.
271. Samanic, C.; Hoppin, J.A.; Lubin, J.H.; Blair, A.; Alavanja, M.C. Factor analysis of pesticide use patterns among pesticide applicators in the Agricultural Health Study. *Journal of Exposure Science & Environmental Epidemiology* **2005**, *15*, 225-233.
272. Gavahian, M.; Khaneghah, A.M. Cold plasma as a tool for the elimination of food contaminants: Recent advances and future trends. *Critical reviews in food science and nutrition* **2020**, *60*, 1581-1592.
273. Hayes Jr, W.J. Safety of DDVP for the Disinfection of Aircraft. *Bulletin of the World Health Organization* **1961**, *24*, 629.
274. Schulze, H.; Schröder, R.; Schuschke, G.; Mielke, U. Pesticides as chemical indoor pollution and persistence in the hospital as an example in long term and short term studies. *Zentralblatt für Hygiene und Umweltmedizin= International Journal of Hygiene and Environmental Medicine* **1994**, *195*, 444-449.
275. Witter, R.F.; Gaines, T.B.; Short, J.G.; Sedlak, V.; Maddock, D. Studies on the safety of DDVP for the disinsection of commercial aircraft. *Bulletin of the World Health Organization* **1961**, *24*, 635.
276. Kim, H.-H.; Lim, Y.-W.; Yang, J.-Y.; Shin, D.-C.; Ham, H.-S.; Choi, B.-S.; Lee, J.-Y. Health risk assessment of exposure to chlorpyrifos and dichlorvos in children at childcare facilities. *Science of the total environment* **2013**, *444*, 441-450.
277. Sidhu, K.; Collisi, M. A case of an accidental exposure to a veterinary insecticide product formulation. *Veterinary and human toxicology* **1989**, *31*, 63-64.
278. Deer, H.; Beck, E.; Roe, A. Respiratory exposure of museum personnel to dichlorvos insecticide. *Veterinary and human toxicology* **1993**, *35*, 226-228.
279. Gold, R.; Holcslaw, T.; Tupy, D.; Ballard, J. Dermal and respiratory exposure to applicators and occupants of residences treated with dichlorvos (DDVP). *Journal of economic entomology* **1984**, *77*, 430-436.
280. Saito, I.; Hisanaga, N.; Takeuchi, Y.; Ono, Y.; Iwata, M.; Masuda, K.; Gotoh, M.; Matsumoto, T.; Fukaya, Y.; Okutani, H. Assessment of the exposure of pest control operators to organophosphorus pesticides. Organophosphorus pesticides in blood and alkyl phosphate metabolites in urine. *Sangyo igaku. Japanese Journal of Industrial Health* **1984**, *26*, 15-21.
281. Schoof, H.; Pearce, G.; Mathis, W. Dichlorvos as a residual fumigant in mud, plywood and bamboo huts. *Bulletin of the World Health Organization* **1963**, *29*, 227.
282. Kaufman, D.W.; Issaragrisil, S.; Anderson, T.; Chansung, K.; Thamprasit, T.; Sirijirachai, J.; Piankijagum, A.; Porapakham, Y.; Vannasaeng, S.; Leaverton, P.E. Use of household pesticides and the risk of aplastic anaemia in Thailand. The Aplastic Anemia Study Group. *International journal of epidemiology* **1997**, *26*, 643-650.
283. Lee, Y.-H.; Kim, H.-H.; Lee, J.-I.; Lee, J.-H.; Kang, H.; Lee, J.-Y. Indoor contamination from pesticides used for outdoor insect control. *Science of the Total Environment* **2018**, *625*, 994-1002.
284. Weis, N.; Stolz, P.; Krooss, J.; Meierhenrich, U. Dichlorvos insect strips indoors: pollution and risk assessment. *Gesundheitswesen (Bundesverband der Ärzte des Öffentlichen Gesundheitsdienstes (Germany))* **1998**, *60*, 445-449.
285. Peters, C.E.; Palmer, A.L.; Telfer, J.; Calvin, B.G.; Hall, A.L.; Davies, H.W.; Pahwa, M.; Demers, P.A. Priority setting for occupational cancer prevention. *Safety and health at work* **2018**, *9*, 133-139.
286. Gillett, J.W.; Harr, J.R.; Lindstrom, F.T.; Mount, D.A.; Clair, A.D.S.; Weber, L.J. Evaluation of human health hazards on use of dichlorvos (DDVP), especially in resin strips. *Residue reviews* **1972**, 115-159.

287. Gillett, J.W.; Harr, J.R.; Clair, A.D.S.; Weber, L.J. Comment on the distinction between hazard and safety in evaluation of human health hazards on use of dichlorvos, especially in resin strips. *Residue reviews* **1972**, 161-184.
288. Otto, M.A.; Martin, N.J.; Rous, J.S.; Stevens Jr, M.E. Determination of airborne concentrations of dichlorvos over a range of temperatures when using commercially available pesticide strips in a simulated military guard post. *J. Occup. Environ. Hyg.* **2017**, *14*, D54-D61.
289. Tsai, R.J.; Sievert, J.; Prado, J.; Program, I.R.; Buhl, K.; Stone, D.L.; Forrester, M.; Higgins, S.; Mitchell, Y.; Schwartz, A. Acute illness associated with use of pest strips—seven US States and Canada, 2000–2013. *MMWR. Morbidity and Mortality Weekly Report* **2014**, *63*, 42.
290. Davis, J.R.; Brownson, R.C.; Garcia, R. Family pesticide use in the home, garden, orchard, and yard. *Archives of environmental contamination and toxicology* **1992**, *22*, 260-266.
291. Dwimawati, E.; Yanuaringsih, G.P.; Pangaribuan, R.; Olivia, N.; Gurning, F.P.; Pratama, M.Y. Smoke Exposure at Home to the Incidence of Pneumonia in Children Under 5 Years Old. *Indian Journal of Forensic Medicine & Toxicology* **2021**, *15*.
292. Hahn, S.; Schneider, K.; Gartiser, S.; Heger, W.; Mangelsdorf, I. Consumer exposure to biocides-identification of relevant sources and evaluation of possible health effects. *Environmental Health* **2010**, *9*, 1-11.
293. Savage, E.P.; Tessari, J.D.; Couture, L.P. Pesticides sold in grocery stores are potential health hazards. *Health Services Reports* **1972**, *87*, 734.
294. Ismail, I.; Gaskin, S.; Pisaniello, D.; Edwards, J.W. Organophosphorus pesticide exposure in agriculture: effects of temperature, ultraviolet light and abrasion on PVC gloves. *Industrial health* **2018**, *56*, 166-170.
295. Krzemińska, S.; Szczecińska, K. Proposal for a method for testing resistance of clothing and gloves to penetration by pesticides. *Ann Agric Environ Med* **2001**, *8*, 145-150.
296. Leary, J.S.; Keane, W.T.; Fontenot, C.; Feichtmeir, E.F.; Schultz, D.; Koos, B.A.; Hirsch, L.; Lavor, E.M.; Roan, C.C.; Hine, C.H. Safety evaluation in the home of polyvinyl chloride resin strip containing dichlorvos (DDVP). *Archives of Environmental Health: An International Journal* **1974**, *29*, 308-314.
297. Li, Y.; Chen, L.; Chen, Z.; Coehlo, J.; Cui, L.; Liu, Y.; Lopez, T.; Sankaran, G.; Vega, H.; Krieger, R. Glove accumulation of pesticide residues for strawberry harvester exposure assessment. *Bulletin of environmental contamination and toxicology* **2011**, *86*, 615-620.
298. Moore, C.; Wilkinson, S.; Blain, P.; Dunn, M.; Aust, G.; Williams, F. Use of a human skin in vitro model to investigate the influence of 'every-day' clothing and skin surface decontamination on the percutaneous penetration of organophosphates. *Toxicology letters* **2014**, *229*, 257-264.
299. Thredgold, L.; Gaskin, S.; Quy, C.; Pisaniello, D. Exposure of agriculture workers to pesticides: the effect of heat on protective glove performance and skin exposure to dichlorvos. *International Journal of Environmental Research and Public Health* **2019**, *16*, 4798.
300. Lambropoulou, D.A.; Albanis, T.A. Application of hollow fiber liquid phase microextraction for the determination of insecticides in water. *Journal of Chromatography A* **2005**, *1072*, 55-61.
301. Zhang, N.; Si, Y.; Sun, Z.; Li, S.; Li, S.; Lin, Y.; Wang, H. Lab-on-a-drop: biocompatible fluorescent nanoprobes of gold nanoclusters for label-free evaluation of phosphorylation-induced inhibition of acetylcholinesterase activity towards the ultrasensitive detection of pesticide residues. *Analyst* **2014**, *139*, 4620-4628.
302. Musa, U.; Hati, S.S.; Mustapha, A.; Magaji, G. Dichlorvos concentrations in locally formulated pesticide (Ota-piapia) utilized in northeastern Nigeria. *Scientific Research and Essays* **2010**, *5*, 049-054.
303. Ham, C.; Meisch, M.; Meek, C. Efficacy of dibrom, trumpet, and scourge against four mosquito species in Louisiana. *Journal of the American Mosquito Control Association-Mosquito News* **1999**, *15*, 433-436.

304. Tre, N.S.; Ize, K.R.; Hester, G. Half Life of Naled Under Three Test Scenarios. *Journal of the American Mosquito Control Association* **1996**, *12*, 251-254.
305. Wofford, P.; Segawa, R.; Schreider, J.; Federighi, V.; Neal, R.; Brattesani, M. Community air monitoring for pesticides. Part 3: using health-based screening levels to evaluate results collected for a year. *Environmental monitoring and assessment* **2014**, *186*, 1355-1370.
306. Sutris, J.M.; Isa, Z.M.; Sumeri, S.A.; Ghazi, H.F. Predictors of detected organophosphorus pesticides among Orang Asli children living in Malaysia. *Annals of global health* **2016**, *82*, 770-778.
307. Bania, T.C.; Chu, J.; Bailes, D.; O'Neill, M. Jimson weed extract as a protective agent in severe organophosphate toxicity. *Academic emergency medicine* **2004**, *11*, 335-338.
308. Wang, J.; Tuduri, L.; Mercury, M.; Millet, M.; Briand, O.; Montury, M. Sampling atmospheric pesticides with SPME: Laboratory developments and field study. *Environmental pollution* **2009**, *157*, 365-370.
309. Britch, S.C.; Linthicum, K.J.; Aldridge, R.L.; Breidenbaugh, M.S.; Latham, M.D.; Connelly, P.H.; Rush, M.J.; Remmers, J.L.; Kerce, J.D.; Silcox, C.A. Aerial ULV control of *Aedes aegypti* with naled (Dibrom) inside simulated rural village and urban cryptic habitats. *PLoS One* **2018**, *13*, e0191555.
310. Zhang, X.; Driver, J.H.; Li, Y.; Ross, J.H.; Krieger, R.I. Dialkylphosphates (DAPs) in fruits and vegetables may confound biomonitoring in organophosphorus insecticide exposure and risk assessment. *Journal of agricultural and food chemistry* **2008**, *56*, 10638-10645.
311. Lorusso, C.; Calisi, A.; Sanchez-Hernandez, J.C.; Varodi, C.; Pogăcean, F.; Pruneanu, S.; Dondero, F. Carbon nanomaterial functionalization with pesticide-detoxifying carboxylesterase. *Chemosphere* **2022**, *309*, 136594.
312. Wagner, R.; Hermes, H. Exposure of gardeners during and after use of dichlorvos, methamidophos and aldicarb in greenhouses. *Zeitschrift fur die Gesamte Hygiene und Ihre Grenzgebiete* **1987**, *33*, 255-257.
313. Peng, X.; Cui, Y.; Cui, L.; Zhou, J. Analysis of pesticide poisoning in Ji'nan during 2012-2016. *Zhonghua lao Dong wei Sheng zhi ye Bing za zhi= Zhonghua Laodong Weisheng Zhiyebing Zazhi= Chinese Journal of Industrial Hygiene and Occupational Diseases* **2018**, *36*, 198-201.
314. Melnick, R.L.; Huff, J. Testing toxic pesticides in humans: health risks with no health benefits. *Environmental health perspectives* **2004**, *112*, A459-A461.
315. Terracini, B. Carcinogenicity of pesticides: is everything under control? 2002; Vol. 8, pp 73-75.
316. Chow, I.; Bellin, J.; Menz, M. Long-Term Exposure of Factory Workers to Dichlorvos (DDVP) Insecticide. *Archives of Environmental Health: An International Journal* **1975**, *30*, 111-112.
317. Sai, M.V.S.; Revati, G.D.; Ramya, R.; Swaroop, A.M.; Maheswari, E.; Kumar, M.M. Knowledge and perception of farmers regarding pesticide usage in a rural farming village, Southern India. *Indian Journal of Occupational and Environmental Medicine* **2019**, *23*, 32.
318. Likos, A.; Griffin, I.; Bingham, A.M.; Stanek, D.; Fischer, M.; White, S.; Hamilton, J.; Eisenstein, L.; Atrubin, D.; Mulay, P. Local mosquito-borne transmission of Zika virus—Miami-Dade and Broward Counties, Florida, June–August 2016. *Morbidity and Mortality Weekly Report* **2016**, *65*, 1032-1038.
319. Goldsmith, D. Linking environmental cancer with occupational epidemiology research: the role of the International Agency for Research on Cancer (IARC). *Journal of Environmental Pathology, Toxicology and Oncology: Official Organ of the International Society for Environmental Toxicology and Cancer* **2000**, *19*, 171-175.
320. Grondin, C.J.; Davis, A.P.; Wiegers, T.C.; King, B.L.; Wiegers, J.A.; Reif, D.M.; Hoppin, J.A.; Mattingly, C.J. Advancing exposure science through chemical data curation and integration in the Comparative Toxicogenomics Database. *Environmental health perspectives* **2016**, *124*, 1592-1599.

321. Barber, L.M.; Schleier III, J.J.; Peterson, R.K. Economic cost analysis of West Nile virus outbreak, Sacramento county, California, USA, 2005. *Emerging infectious diseases* **2010**, *16*, 480.
322. London, L.; Coggon, D.; Moretto, A.; Westerholm, P.; Wilks, M.F.; Colosio, C. The ethics of human volunteer studies involving experimental exposure to pesticides: unanswered dilemmas. *Environmental Health* **2010**, *9*, 1-17.
323. Brock, W.J.; Rodricks, J.V.; Rulis, A.; Dellarco, V.L.; Gray, G.M.; Lane, R.W. Food safety: risk assessment methodology and decision-making criteria. *International journal of toxicology* **2003**, *22*, 435-451.
324. International Agency for Research on Cancer. IARC Monogr Eval Carcinog Risks Hum. *Biological agents* **2004**, *100*.
325. Hertz-Picciotto, I.; Sass, J.B.; Engel, S.; Bennett, D.H.; Bradman, A.; Eskenazi, B.; Lanphear, B.; Whyatt, R. Organophosphate exposures during pregnancy and child neurodevelopment: recommendations for essential policy reforms. *PLoS medicine* **2018**, *15*, e1002671.
326. Tutiven, J.L.; Pruden, B.T.; Banks, J.S.; Stevenson, M.; Birnbach, D.J. Zika virus: obstetric and pediatric anesthesia considerations. *Anesthesia & Analgesia* **2017**, *124*, 1918-1929.
327. Moda, H.M.; Anang, D.M.; Moses, N.; Manjo, F.M.; Joshua, V.I.; Christopher, N.; Doka, P.; Danjin, M. Pesticide safety awareness among rural farmers in Dadinkowa, Gombe State, Nigeria. *International journal of environmental research and public health* **2022**, *19*, 13728.
328. Jameson, L.E.; Conrow, K.D.; Pinkhasova, D.V.; Boulanger, H.L.; Ha, H.; Jourabchian, N.; Johnson, S.A.; Simeone, M.P.; Afia, I.A.; Cahill, T.M. Comparison of state-level regulations for cannabis contaminants and implications for public health. *Environmental health perspectives* **2022**, *130*, 097001.
329. Li, Q.; Zhang, J.; Lin, T.; Fan, C.; Li, Y.; Zhang, Z.; Li, J. Migration behavior and dietary exposure risk assessment of pesticides residues in honeysuckle (*Lonicera japonica* Thunb.) based on modified QuEChERS method coupled with tandem mass spectrometry. *Food Research International* **2023**, *166*, 112572.
330. Ssemugabo, C.; Bradman, A.; Ssempebwa, J.C.; Sillé, F.; Guwatudde, D. An assessment of health risks posed by consumption of pesticide residues in fruits and vegetables among residents in the Kampala Metropolitan Area in Uganda. *International Journal of Food Contamination* **2022**, *9*, 1-14.
331. Ding, G.; Bao, Y. Revisiting pesticide exposure and children's health: Focus on China. *Science of the total environment* **2014**, *472*, 289-295.
332. Mennear, J.H. Dichlorvos: a regulatory conundrum. *Regulatory Toxicology and Pharmacology* **1998**, *27*, 265-272.
333. Moura, L.T.R.d.; Bedor, C.N.G.; Lopez, R.V.M.; Santana, V.S.; Rocha, T.M.B.d.S.d.; Wünsch Filho, V.; Curado, M.P. Occupational exposure to organophosphate pesticides and hematologic neoplasms: a systematic review. *Revista Brasileira de Epidemiologia* **2020**, *23*.
334. Okoroïwu, H.U.; Iwara, I.A. Dichlorvos toxicity: A public health perspective. *Interdisciplinary toxicology* **2018**, *11*, 129.
335. Sabarwal, A.; Kumar, K.; Singh, R.P. Hazardous effects of chemical pesticides on human health—Cancer and other associated disorders. *Environmental toxicology and pharmacology* **2018**, *63*, 103-114.
336. Gandhi, R.; Snedeker, S.M. Critical Evaluation of Dichlorvos' Breast Cancer Risk. **1999**.
337. Giambò, F.; Teodoro, M.; Costa, C.; Fenga, C. Toxicology and microbiota: How do pesticides influence gut microbiota? A review. *International Journal of Environmental Research and Public Health* **2021**, *18*, 5510.
338. de Andrade, J.C.; Galvan, D.; Kato, L.S.; Conte-Junior, C.A. Consumption of fruits and vegetables contaminated with pesticide residues in Brazil: A systematic review with health risk assessment. *Chemosphere* **2023**, 138244.
339. Deschamps, D.; Questel, F.; Baud, F.; Gervais, P.; Dally, S. Persistent asthma after acute inhalation of organophosphate insecticide. *The Lancet* **1994**, *344*, 1712.
340. Georgiadis, N.; Tsarouhas, K.; Tsitsimpikou, C.; Vardavas, A.; Rezaee, R.; Germanakis, I.; Tsatsakis, A.; Stagos, D.; Kouretas, D. Pesticides and cardiotoxicity. Where do we stand? *Toxicology and applied pharmacology* **2018**, *353*, 1-14.

341. Boucaud-Maitre, D.; Rambourg, M.-O.; Sinno-Tellier, S.; Puskarczyk, E.; Pineau, X.; Kammerer, M.; Bloch, J.; Langrand, J. Human exposure to banned pesticides reported to the French Poison Control Centers: 2012–2016. *Environmental Toxicology and Pharmacology* **2019**, *69*, 51–56.
342. Daglioglu, N.; Akcan, R.; Gulmen, M.K.; Yener, F.; Efeoglu, P. Pesticide intoxications in Cukurova, Turkey: three years analysis. *Human & Experimental Toxicology* **2011**, *30*, 1892–1895.
343. Koc, F.; Yerdelen, D.; Kekec, Z. Myeloneuritis due to acute organophosphate (DDVP) intoxication. *International journal of neuroscience* **2009**, *119*, 1538–1547.
344. Sener, E.B.; Ustun, E.; Kocamanoglu, S.; Tur, A. Prolonged apnea following succinylcholine administration in undiagnosed acute organophosphate poisoning. *Acta anaesthesiologica scandinavica* **2002**, *46*, 1046–1048.
345. Stegailo, E.; Druchevskaia, Z.; Zhivogliadova, L.; Zaitseva, L. Clinical aspects of acute dichlorvos poisoning in children. *Sovetskoe Zdravookhranenie Kirgizii* **1973**, *2*, 47–49.
346. Zhang, M.; Fang, X.; Zhou, L.; Su, L.; Zheng, J.; Jin, M.; Zou, H.; Chen, G. Pesticide poisoning in Zhejiang, China: a retrospective analysis of adult cases registration by occupational disease surveillance and reporting systems from 2006 to 2010. *BMJ open* **2013**, *3*, e003510.
347. Soltaninejad, K.; Shadnia, S. History of the use and epidemiology of organophosphorus poisoning. In *Basic and Clinical Toxicology of Organophosphorus Compounds*, Springer: 2014; pp. 25–43.
348. Yu, B.; Ding, B.; Shen, H.; Zhu, B.; Gao, Q. Analysis of reports of cases of pesticide poisoning in Jiangsu Province, China, from 2006 to 2013. *Zhonghua lao dong wei sheng zhi ye bing za zhi= Zhonghua laodong weisheng zhiyebing zazhi= Chinese journal of industrial hygiene and occupational diseases* **2015**, *33*, 194–198.
349. Banday, T.H.; Tathineni, B.; Desai, M.S.; Naik, V. Predictors of morbidity and mortality in organophosphorus poisoning: a case study in rural hospital in Karnataka, India. *North American journal of medical sciences* **2015**, *7*, 259.
350. Prashar, A.; Ramesh, M. Assessment of pattern and outcomes of pesticides poisoning in a tertiary care hospital. *Tropical Medicine & International Health* **2018**, *23*, 1401–1407.
351. Todd, S.W.; Lumsden, E.W.; Aracava, Y.; Mamczarz, J.; Albuquerque, E.X.; Pereira, E.F. Gestational exposures to organophosphorus insecticides: From acute poisoning to developmental neurotoxicity. *Neuropharmacology* **2020**, *180*, 108271.
352. Yurumez, Y.; Durukan, P.; Yavuz, Y.; Ikizceli, I.; Avsarogullari, L.; Ozkan, S.; Akdur, O.; Ozdemir, C. Acute organophosphate poisoning in university hospital emergency room patients. *Internal medicine* **2007**, *46*, 965–969.

**Disclaimer/Publisher’s Note:** The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.