# Chapter 6

## Bibliography


Abbas, M., Adil, M., Ehtisham-ul-Haque, S., Munir, B., Yameen, M., Ghaffar, A., ... & Iqbal, M. (2018). Vibrio fischeri bioluminescence inhibition assay for ecotoxicity assessment: A review. Science of the Total Environment, 626, 1295-1309.

Abdul-Ghani, S., Yanai, J., Abdul-Ghani, R., Pinkas, A., & Abdeen, Z. (2012). The teratogenicity and behavioral teratogenicity of di (2-ethylhexyl) phthalate (DEHP) and di-butyl phthalate (DBP) in a chick model. Neurotoxicology and teratology, 34(1), 56-62.

Abhilash, P. C., & Singh, N. (2009). Pesticide use and application: an Indian scenario. Journal of hazardous materials, 165(1-3), 1-12.

Agrawal, A., & Sharma, B. (2010). Pesticides induced oxidative stress in mammalian systems: a review. Int J Biol Med Res, 1(3), 90-104.

Ahlgren, S. C., & Bronner-Fraser, M. (1999). Inhibition of sonic hedgehog signaling in vivo results in craniofacial neural crest cell death. Current Biology, 9(22), 1304-1314.

Ahluwalia, I. J. (2019). Urban governance in India. Journal of Urban Affairs, 41(1), 83-102.

Akcha, F., Spagnol, C., & Rouxel, J. (2012). Genotoxicity of diuron and glyphosate in oyster spermatozoa and embryos. Aquatic Toxicology, 106, 104-113.

Aktar, W., Sengupta, D., & Chowdhury, A. (2009). Impact of pesticides use in agriculture: their benefits and hazards. Interdisciplinary toxicology, 2(1), 1-12.

Alexander, C., Zuniga, E., Blitz, I. L., Wada, N., Le Pabic, P., Javidan, Y., ... & Schilling, T. F. (2011). Combinatorial roles for BMPs and Endothelin 1 in patterning the dorsal-ventral axis of the craniofacial skeleton. Development, 138(23), 5135-5146.

Alexander, P. G., Londono, R., Lozito, T. P., & Tuan, R. S. (2018). Environmental Factors and Axial Skeletal Dysmorphogenesis. In The Genetics and Development of Scoliosis (pp. 31-61). Springer, Cham.

Alleva, R., Manzella, N., Gaetani, S., Bacchetti, T., Bracci, M., Ciarapica, V., ... & Tomasetti, M. (2018). Mechanism underlying the effect of long-term exposure to low dose of pesticides on DNA integrity. Environmental toxicology, 33(4), 476-487.

Amer, S. M., & Aboul-ela, E. I. (1985). Cytogenetic effects of pesticides: III. Induction of micronuclei in mouse bone marrow by the insecticides cypermethrin and rotenone. Mutation Research/Genetic Toxicology, 155(3), 135-142.

Amer, S. M., Ibrahim, A. A. E. S., & El-Sherbeny, K. M. (1993). Induction of chromosomal aberrations and sister chromatid exchange in vivo and in vitro by the insecticide cypermethrin. Journal of Applied Toxicology, 13(5), 341-345.

Anwar, K. (2003). Toxic Effects of Cypermethrin on the Biochemistry and Morphology of 11th Day Chick Embryo (Gallus domesticus). Pakistan Journal of Applied Sciences, 3(6), 432-445.

Aoto, K., Nishimura, T., Eto, K., & Motoyama, J. (2002). Mouse GLI3 regulates Fgf8 expression and apoptosis in the developing neural tube, face, and limb bud. Developmental biology, 251(2), 320-332.

Arbuckle, T. E., & Sever, L. E. (1998). Pesticide exposures and fetal death: a review of the epidemiologic literature. Critical reviews in toxicology, 28(3), 229-270.

Bahm, I., Barriga, E. H., Frolov, A., Theveneau, E., Frankel, P., & Mayor, R. (2017). PDGF controls contact inhibition of locomotion by regulating N-cadherin during neural crest migration. Development, dev-147926.

Baker, S. E., Olsson, A. O., & Barr, D. B. (2004). Isotope dilution high-performance liquid chromatography–tandem mass spectrometry method for quantifying urinary metabolites of synthetic pyrethroid insecticides. Archives of environmental contamination and toxicology, 46(3), 281-288.

Bala, B. K., Haque, M. A., Hossain, M. A., & Majumdar, S. (2010). Post harvest loss and technical efficiency of rice, wheat and maize production system: Assessment and measures for strengthening food security. Final Report CF, 6(08).

Barr, D. B., Wilder, L. C., Caudill, S. P., Gonzalez, A. J., Needham, L. L., & Pirkle, J. L. (2004). Urinary creatinine concentrations in the US population: implications for urinary biologic monitoring measurements. Environmental health perspectives, 113(2), 192-200.

Barth, A. I., Näthke, I. S., & Nelson, W. J. (1997). Cadherins, catenins and APC protein: interplay between cytoskeletal complexes and signaling pathways. Current opinion in cell biology, 9(5), 683-690.

Basson, M. A. (2012). Signaling in cell differentiation and morphogenesis. Cold Spring Harbor perspectives in biology, a008151.

Bernardes, M. F. F., Pazin, M., Pereira, L. C., & Dorta, D. J. (2015). Impact of pesticides on environmental and human health. Toxicology Studies-Cells, Drugs and Environment (Andreazza C y Scola G Eds.). InTech, Croacia, 195-233.

Bess, S., & Varma, V. (2011). Embryology and anatomy: spine/spinal cord. In The Growing Spine (pp. 3-12). Springer, Berlin, Heidelberg

Bhalla, G. S., & Chadha, G. K. (1982). Green Revolution and the Small Peasant: A Study of Income Distribution in Punjab Agriculture: II. Economic and Political Weekly, 870-877.

Bjornstad, P., Lanaspa, M. A., Ishimoto, T., Kosugi, T., Kume, S., Jalal, D., ... & Nakagawa, T. (2015). Fructose and uric acid in diabetic nephropathy. Diabetologia, 58(9), 1993-2002.

Blair, A., Ritz, B., Wesseling, C., & Freeman, L. B. (2015). Pesticides and human health.

Blankenship, A. L., Hilscherova, K., Nie, M., Coady, K. K., Villalobos, S. A., Kannan, K., ... &Giesy, J. P. (2003). Mechanisms of TCDD-induced abnormalities and embryo lethality in white leghorn chickens. Comparative Biochemistry and Physiology Part C: Toxicology & Pharmacology, 136(1), 47-62.

Botyar, M., & Khoramroudi, R. (2018). Ultraviolet radiation and its effects on pregnancy: A review study. Journal of family medicine and primary care, 7(3), 511.

Bradford, M. (I976). A rapid and sensitive method for the quantification of micrograms quantities of protein utilizing the principle of protein—dye binding [. I]. Anal Biochem, 72, 248254.Brewer, S., & Williams, T. 2004. Finally, a sense of closure? Animal models of human ventral body wall defects. Bioessays, 26(12), 1307-1321.

Bradley, E. W., & Drissi, M. H. (2010). WNT5A regulates chondrocyte differentiation through differential use of the CaN/NFAT and IKK/NF-κB pathways. Molecular endocrinology, 24(8), 1581-1593.

Bradman, A., Eskenazi, B., Barr, D. B., Bravo, R., Castorina, R., Chevrier, J., ... & McKone, T. E. (2005). Organophosphate urinary metabolite levels during pregnancy and after delivery in women living in an agricultural community. Environmental health perspectives, 113(12), 1802-1807.

Bragdon, B., Moseychuk, O., Saldanha, S., King, D., Julian, J., & Nohe, A. (2011). Bone morphogenetic proteins: a critical review. Cellular signalling, 23(4), 609-620.

Brainerd, E., & Menon, N. (2013). Religion and health in early childhood: Evidence from the Indian subcontinent (No. 65).

Brault, V., Moore, R., Kutsch, S., Ishibashi, M., Rowitch, D. H., McMahon, A. P., ... & Kemler, R. (2001). Inactivation of the (β)-catenin gene by Wnt1-Cre-mediated deletion results in dramatic brain malformation and failure of craniofacial development. Development, 128(8), 1253-1264.

Brent, R. L., Beckman, D. A., Jensen, M., & Koszalka, T. R. (1990). Experimental yolk sac dysfunction as a model for studying nutritional disturbances in the embryo during early organogenesis. Teratology, 41(4), 405-413.

Bretveld, R. W., Thomas, C. M., Scheepers, P. T., Zielhuis, G. A., &Roeleveld, N. (2006). Pesticide exposure: the hormonal function of the female reproductive system disrupted?. Reproductive Biology and Endocrinology, 4(1), 30.

Brewer, S., & Williams, T. (2004). Finally, a sense of closure? Animal models of human ventral body wall defects. Bioessays, 26(12), 1307-1321.

Cantalamessa, F. (1993). Acute toxicity of two pyrethroids, permethrin, and cypermethrin in neonatal and adult rats. Archives of toxicology, 67(7), 510-513.

Carson, R. (2009). Silent spring. 1962.

Casco, V. H., Izaguirre, M. F., Marin, L., Vergara, M. N., Lajmanovich, R. C., Peltzer, P., & Soler, A. P. (2006). Apoptotic cell death in the central nervous system of Bufo arenarum tadpoles induced by cypermethrin. Cell biology and toxicology, 22(3), 199-211.

Castro-e-Silva, A., & Bernardes, A. T. (2005). Gastrulation as a self-organized symmetry breaking process. Physica A: Statistical Mechanics and its Applications, 352(2-4), 535-546.

Chakraborty, P. K., Scharner, B., Jurasovic, J., Messner, B., Bernhard, D., & Thévenod, F. (2010). Chronic cadmium exposure induces transcriptional activation of the Wnt pathway and upregulation of epithelial-to-mesenchymal transition markers in mouse kidney. Toxicology letters, 198(1), 69-76.

Chamala, S. (1990). Social and environmental impacts of modernization of agriculture in developing countries. Environmental Impact Assessment Review, 10(1-2), 219-231.

Chaudhary, S., Ansari, M. S., Abbas, M. N., Kausar, S., Iqbal, R., Saleem, R., & Sabir, J. I. S. (2017). Toxic Effects of Chlorpyrifos on 12th Day Desi Chick Embryo (Gallus gallusdomesticus). Nucleus, 54(2), 136-140.

Chinn, K. E. V. I. N., & Narahashi, T. O. S. H. I. O. (1986). Stabilization of sodium channel states by deltamethrin in mouse neuroblastoma cells. The Journal of physiology, 380(1), 191-207.

Choudhary, S., Yamini, N. R., Yadav, S. K., & and Amit Sharma, M. K. (2018). A review: Pesticide residue: Cause of many animal health problems.

Christison-Lagay, E. R., Kelleher, C. M., & Langer, J. C. (2011, June). Neonatal abdominal wall defects. In Seminars in Fetal and Neonatal Medicine (Vol. 16, No. 3, pp. 164-172). WB Saunders.

Chung, J. Y., Yu, S. D., & Hong, Y. S. (2014). Environmental source of arsenic exposure. Journal of preventive medicine and public health, 47(5), 253.

Ciruna, B., &Rossant, J. (2001). FGF signaling regulates mesoderm cell fate specification and morphogenetic movement at the primitive streak. Developmental cell, 1(1), 37-49.

Coats, J. R. (1990). Mechanisms of toxic action and structure-activity relationships for organochlorine and synthetic pyrethroid insecticides. Environmental Health Perspectives, 87, 255.

Colas, J. F., & Schoenwolf, G. C. (2001). Towards a cellular and molecular understanding of neurulation. Developmental dynamics: an official publication of the American Association of Anatomists, 221(2), 117-145.

Copp, A., Cogram, P., Fleming, A., Gerrelli, D., Henderson, D., Hynes, A., ... &Ybot-Gonzalez, P. (2000). Neurulation and neural tube closure defects. Developmental Biology

Protocols: Volume II, 135-160.Duhamel, B. 1963. Embryology of exomphalos and allied malformations. Archives of disease in childhood, 38(198), 142-147.

Costa, L. G., Cole, T. B., Jansen, K. L., & Furlong, C. E. (2008). Paraoxonase (PON1) and organophosphate toxicity. In The paraoxonases: their role in disease development and xenobiotic metabolism (pp. 209-220). Springer, Dordrecht.

Crumpton, T. L., Seidler, F. J., & Slotkin, T. A. (2000). Developmental neurotoxicity of chlorpyrifos in vivo and in vitro: effects on nuclear transcription factors involved in cell replication and differentiation. Brain research, 857(1-2), 87-98.

Dam, K., Garcia, S. J., Seidler, F. J., &Slotkin, T. A. (1999). Neonatal chlorpyrifos exposure alters synaptic development and neuronal activity in cholinergic and catecholaminergic pathways. Developmental Brain Research, 116(1), 9-20.

Datt, R., & Sundharam, K. P. M. (2009). Indian Economy. New Delhi: S. Chand Group (p. 976). ISBN 978-81-219-0298-4.

Davey, M. G., Towers, M., Vargesson, N., & Tickle, C. (2018). The chick limb: embryology, genetics and teratology. International Journal of Developmental Biology.

Day, T. F., & Yang, Y. (2008). Wnt and hedgehog signaling pathways in bone development. *JBJS*, *90*(Supplement_1), 19-24.

Deneer, J. W. (2000). Toxicity of mixtures of pesticides in aquatic systems. Pest Management Science: formerly Pesticide Science, 56(6), 516-520.

Depew, M. J. (2008). Analysis of skeletal ontogenesis through differential staining of bone and cartilage. In Molecular Embryology (pp. 37-45). Humana Press.

Deshpande, T. (2017). State of Agriculture in India. PRS Legislative Research, 6-7.

Detrick, R. J., Dickey, D., & Kintner, C. R. (1990). The effects of N-cadherin misexpression on morphogenesis in Xenopus embryos. Neuron, 4(4), 493-506.

Devi, P. (2010). A study on toxicological impact of endosulfan endocel on some target organs in channa punctatus bloch.

Devi, P. I., Thomas, J., & Raju, R. K. (2017). Pesticide consumption in India: a spatiotemporal analysis. Agricultural Economics Research Review, 29(347-2017-2047), 163-172.

Diez del Corral, R., & Morales, A. V. (2017). The Multiple roles of FGF signaling in the developing spinal cord. Frontiers in Cell and Developmental Biology, 5, 58.

Dixon, J., Jones, N. C., Sandell, L. L., Jayasinghe, S. M., Crane, J., Rey, J. P., ... & Trainor, P. A. (2006). Tcof1/Treacle is required for neural crest cell formation and proliferation deficiencies that cause craniofacial abnormalities. Proceedings of the National Academy of Sciences, 103(36), 13403-13408.

Drake, V. J., Koprowski, S. L., Lough, J. W., & Smith, S. M. (2006). Gastrulating chick embryo as a model for evaluating teratogenicity: a comparison of three approaches. Birth Defects Research Part A: Clinical and Molecular Teratology, 76(1), 66-71.

Dubey, N. K., Shukla, Ravindra Kumar, Ashok Singh, Priyanka & Prakash Bhanu. (2011). Global scenario on the application of natural products in integrated pest management programmes. Natural products in plant pest management, 1, 1-20.

Duhamel, B. (1963). Embryology of exomphalos and allied malformations. Archives of Disease in Childhood, 38(198), 142.

Dureja, P., Casida, J. E., & Ruzo, L. O. (1986). U.S. Patent No. 4,622,315. Washington, DC: U.S. Patent and Trademark Office.

Durmaz, H., Sevgiler, Y., & Üner, N. (2006). Tissue-specific antioxidative and neurotoxic responses to diazinon in Oreochromis niloticus. Pesticide Biochemistry and physiology, 84(3), 215-226.

Eaton, D. L., Daroff, R. B., Autrup, H., Bridges, J., Buffler, P., Costa, L. G., ... & Neubert, D. (2008). Review of the toxicology of chlorpyrifos with an emphasis on human exposure and neurodevelopment. Critical reviews in toxicology, 38(sup2), 1-125.

Ecobichon, D. J. (2001). Pesticide use in developing countries. Toxicology, 160(1-3), 27-33.

Edwards, C. A., & O'Brien Jr, W. D. (1980). Modified assay for determination of hydroxyproline in a tissue hydrolyzate. Clinica chimica acta, 104(2), 161-167.

Eells, J. T., Bandettini, P. A., Holman, P. A., & Propp, J. M. (1992). Pyrethroid insecticide-induced alterations in mammalian synaptic membrane potential. Journal of Pharmacology and Experimental Therapeutics, 262(3), 1173-1181.

El-Toukhy, M. A., & Girgis, R. S. (1993). In vivo and in vitro studies on the effect of larvin and cypermethrin on adenosine triphosphatase activity of male rats. Journal of Environmental Science & Health Part B, 28(5), 599-619.

Feldkamp, M. L., Carey, J. C., & Sadler, T. W. (2007). Development of gastroschisis: review of hypotheses, a novel hypothesis, and implications for research. American journal of medical genetics Part A, 143(7), 639-652

Fischer, G., Van Velthuizen, H., Shah, M., & Nachtergaele, F. (2002). Global agroecological assessment for agriculture. In in the 21st Century, Rome, Food and Agriculture Organization of the United Nations (FAO), and Laxenburg, International Institute for Applied Systems Analysis (IIASA.

Fish, J. L. (2016). Developmental mechanisms underlying variation in craniofacial disease and evolution. Developmental biology, 415(2), 188-197.

Fleming, T. P., Javed, Q., & Hay, M. (1992). Epithelial differentiation and intercellular junction formation in the mouse early embryo. Development, 116(Supplement), 105-112.

Forget, G. (1993). Balancing the need for pesticides with the risk to human health. In Impact of pesticide use on health in developing countries: proceedings of a symposium held in Ottawa, Canada, 17-20 Sept. 1990. IDRC, Ottawa, ON, CA.

Fukuto, T. R. (1970). Relationships between the structure of organophosphorus compounds and their activity as acetylcholinesterase inhibitors. Bulletin of the World Health Organization, 44(1-3), 31-42.

Fukuto, T. R., & Sims, J. J. (1971). Metabolism of insecticides and fungicides. Pesticides in the environment, 1(part 1), 145-236.

Fung, F. K., Chan, D. W., Liu, V. W., Leung, T. H., Cheung, A. N., & Ngan, H. Y. (2012). Increased expression of PITX2 transcription factor contributes to ovarian cancer progression. PloS one, 7(5), e37076.

Garcia, A. M. (2003). Pesticide exposure and women's health. American journal of industrial medicine, 44(6), 584-594.

Garcia, S. J., Seidler, F. J., Crumpton, T. L., & Slotkin, T. A. (2001). Does the developmental neurotoxicity of chlorpyrifos involve glial targets? Macromolecule synthesis, adenylyl

cyclase signaling, nuclear transcription factors, and formation of reactive oxygen in C6 glioma cells. Brain research, 891(1), 54-68.

Gilbert, S. F. (2003). The morphogenesis of evolutionary developmental biology. International Journal of Developmental Biology, 47(7-8), 467-477.

Gilbert, S. F. (2006). Developmental Biology, Eight Edition. Sunderland, MA: Sinauer Associates.

Gilden, R. C., Huffling, K., & Sattler, B. (2010). Pesticides and health risks. Journal of Obstetric, Gynecologic& Neonatal Nursing, 39(1), 103-110.

Greenburg, D. L., Rusiecki, J., Koutros, S., Dosemeci, M., Patel, R., Hines, C. J., ... &Alavanja, M. C. (2008). Cancer incidence among pesticide applicators exposed to captan in the Agricultural Health Study. Cancer Causes & Control, 19(10), 1401-1407.

Griffin, J. N., Compagnucci, C., Hu, D., Fish, J., Klein, O., Marcucio, R., & Depew, M. J. (2013). Fgf8 dosage determines midfacial integration and polarity within the nasal and optic capsules. Developmental biology, 374(1), 185-197.

Grube, A., Donaldson, D., Kiely, T., & Wu, L. (2011). Pesticides industry sales and usage. *US EPA, Washington, DC*.

Hamburger, V., & Hamilton, H. L. (1951). A series of normal stages in the development of the chick embryo. Journal of morphology, 88(1), 49-92.

Hamilton, W. J., & Mossman, H. W. (1972). Nervous system. In Human Embryology (pp. 437-525). Macmillan Education UK.

Hazarika, R., & Deka, P. (2017). Genetic DNA Damage in Agricultural Workers Exposed to Pesticides in the Dabaliapara area of Barpeta District Assam, India. Journal of Contemporary Medical Research, 4(9), 1868-1871.

He, F. (1994). Synthetic pyrethroids. Toxicology, 91(1), 43-49.

Heine, V. M., & Rowitch, D. H. (2009). Hedgehog signaling has a protective effect in glucocorticoid-induced mouse neonatal brain injury through an 11βHSD2-dependent mechanism. The Journal of clinical investigation, 119(2), 267-277.

Hernández, A. F., Parrón, T., Tsatsakis, A. M., Requena, M., Alarcón, R., & López-Guarnido, O. (2013). Toxic effects of pesticide mixtures at a molecular level: their relevance to human health. Toxicology, 307, 136-145.

Hernández-Díaz, S., Smith, C. R., Shen, A., Mittendorf, R., Hauser, W. A., Yerby, M., ... &Fureman, B. (2012). Comparative safety of antiepileptic drugs during pregnancy. Neurology, 78(21), 1692-1699.

Hohmann, C. F. (2003). A morphogenetic role for acetylcholine in mouse cerebral neocortex. Neuroscience & Biobehavioral Reviews, 27(4), 351-363.

Holleville, N., Quilhac, A., Bontoux, M., & élène Monsoro-Burq, A. H. (2003). BMP signals regulate Dlx5 during early avian skull development. Developmental biology, 257(1), 177-189.

Hu, J. X., Li, Y. F., Li, J., Pan, C., He, Z., Dong, H. Y., & Xu, L. C. (2013). Toxic effects of cypermethrin on the male reproductive system: with emphasis on the androgen receptor. Journal of applied toxicology, 33(7), 576-585.

Igbedioh, S. O. (1991). Effects of agricultural pesticides on humans, animals, and higher plants in developing countries. Archives of Environmental Health: An International Journal, 46(4), 218-224.

Irving, C., & Mason, I. (2000). Signalling by FGF8 from the isthmus patterns anterior hindbrain and establishes the anterior limit of Hox gene expression. Development, 127(1), 177-186.

Iyyadurai, R., Peter, J. V., Immanuel, S., Begum, A., Zachariah, A., Jasmine, S., & Abhilash, K. P. P. (2014). Organophosphate-pyrethroid combination pesticides may be associated with increased toxicity in human poisoning compared to either pesticide alone. Clinical Toxicology, 52(5), 538-541.

Jayaraj, R., Megha, P., & Sreedev, P. (2016). Organochlorine pesticides, their toxic effects on living organisms and their fate in the environment. Interdisciplinary toxicology, 9(3-4), 90-100.

Jelinek, R. (1982). Use of chick embryo in screening for embryotoxicity. Teratogenesis, carcinogenesis, and mutagenesis, 2(3-4), 255-261.

Jin, H., & Webster, G. B. (1998). Persistence, penetration, and surface availability of cypermethrin and its major degradation products in elm bark. Journal of agricultural and food chemistry, 46(7), 2851-2857.

Johnson, S., Saikia, N., & Kumar, A. (2006). Analysis of pesticide residues in soft drinks. Centre for Science and Environment Report 41, 2006, Tughlakabad institutional area, New Delhi, 110062.

Jokanović, M. (2009). Medical treatment of acute poisoning with organophosphorus and carbamate pesticides. Toxicology letters, 190(2), 107-115.

Kain, V., Prabhu, S. D., & Halade, G. V. (2014). Inflammation revisited: inflammation versus resolution of inflammation following myocardial infarction. Basic research in cardiology, 109(6), 444.

Kalliora, C., Mamoulakis, C., Vasilopoulos, E., Stamatiades, G. A., Kalafati, L., Barouni, R., ... & Tsatsakis, A. (2018). Association of pesticide exposure with human congenital abnormalities. Toxicology and applied pharmacology, 346, 58-75.

Kalluri, R., & Weinberg, R. A. (2009). The basics of epithelial-mesenchymal transition. The Journal of clinical investigation, 119(6), 1420-1428.

Kalluri, R., & Weinberg, R. A. (2010). The basics of epithelial-mesenchymal transition. The Journal of clinical investigation, 120(5), 1786-1786.

Kamiya, N., & Mishina, Y. (2011). New insights on the roles of BMP signaling in bone—a review of recent mouse genetic studies. Biofactors, 37(2), 75-82.

Kamrin, M. A. (1997). Pesticide profiles: toxicity, environmental impact, and fate. CRC press.

Kaneko, H. (2010). Pyrethroids: mammalian metabolism and toxicity. Journal of agricultural and food chemistry, 59(7), 2786-2791.

Kantarcioglu, E., Kahilogullari, G., Zaimoglu, M., Atmis, E. O., Peker, E., Yigman, Z., ... & Unlü, A. (2018). The effect of magnetic resonance imaging on neural tube development in an early chicken embryo model. Child's Nervous System, 34(5), 933-938.

Kar, J., & Kar, M. (2008). Environment and Changing Agricultural Practices: Evidence from Orissa, India. Indus J. Man. Soc. Sci, 2(2), 119-128.

Karhadkar, S. S., Bova, G. S., Abdallah, N., Dhara, S., Gardner, D., Maitra, A., ... & Beachy, P. A. (2004). Hedgehog signalling in prostate regeneration, neoplasia and metastasis. Nature, 431(7009), 707.

Kaur, B., Singh, J. M., Garg, B. R., Singh, J., & Singh, S. (2011). Causes and impact of labour migration: A case study of Punjab agriculture. Agricultural Economics Research Review, 24(347-2016-16993), 459-466.

Kawane, T., Qin, X., Jiang, Q., Miyazaki, T., Komori, H., Yoshida, C. A., ... & Maeno, T. (2018). Runx2 is required for the proliferation of osteoblast progenitors and induces proliferation by regulating Fgfr2 and Fgfr3. Scientific reports, 8(1), 13551.

Kelly, D. J., & Jacobs, C. R. (2010). The role of mechanical signals in regulating chondrogenesis and osteogenesis of mesenchymal stem cells. Birth Defects Research Part C: Embryo Today: Reviews, 90(1), 75-85.

Khan N. A., Uggini, G. K., Patel, S. and Balakrishnan, S. (2015). In-ovo treatment of chlorpyrifos and cypermethrin in combination altered the haematological parameters in two generations of domestic hen, Indian Journal of Fundamental and Applied Life Sciences, 5, 120-126.

Kidd, H and James, DR (1991). The agrochemicals Handbook,A 0791/Aug 91. Third edition, Unwin Borthers limited Old Working, Surney

Kitamura, K., Miura, H., Miyagawa-Tomita, S., Yanazawa, M., Katoh-Fukui, Y., Suzuki, R., ... & Kondo, S. (1999). Mouse PITX2 deficiency leads to anomalies of the ventral body wall, heart, extra-and periocular mesoderm and right pulmonary isomerism. Development, 126(24), 5749-5758.

Knight, R. D., & Schilling, T. F. (2013). Cranial neural crest and development of the head skeleton. In Madame Curie Bioscience Database [Internet]. Landes Bioscience..

Kostoff, R. N., Goumenou, M., & Tsatsakis, A. (2018). The role of toxic stimuli combinations in determining safe exposure limits.

Kronenberg, H. M. (2003). Developmental regulation of the growth plate. Nature, 423(6937), 332.

Kubrak, O. I., Atamaniuk, T. M., Husak, V. V., Drohomyretska, I. Z., Storey, J. M., Storey, K. B., & Lushchak, V. I. (2012). Oxidative stress responses in blood and gills of Carassius

auratus exposed to the mancozeb-containing carbamate fungicide Tattoo. Ecotoxicology and environmental safety, 85, 37-43.

Kugler, J., Tharmann, J., Chuva de Sousa Lopes, S. M., Kemler, R., Luch, A., & Oelgeschläger, M. (2015). A Bmp reporter transgene mouse embryonic stem cell model as a tool to identify and characterize chemical teratogens. Toxicological Sciences, 146(2), 374-385.

Kulesa, P. M., Bailey, C. M., Kasemeier-Kulesa, J. C., & McLennan, R. (2010). Cranial neural crest migration: new rules for an old road. Developmental biology, 344(2), 543-554.

LaBonne, C., & Bronner-Fraser, M. (1998). Induction and patterning of the neural crest, a stem cell-like precursor population. Journal of neurobiology, 36(2), 175-189.

Landrigan, P. J., Schechter, C. B., Lipton, J. M., Fahs, M. C., & Schwartz, J. (2002). Environmental pollutants and disease in American children: estimates of morbidity, mortality, and costs for lead poisoning, asthma, cancer, and developmental disabilities. Environmental health perspectives, 110(7), 721.

Langenbach, T. (2013). Persistence and bioaccumulation of persistent organic pollutants (POPs). Applied bioremediation active and passive approaches, 305.

Le Dréau, G., & Martí, E. (2012). Dorsal–ventral patterning of the neural tube: a tale of three signals. Developmental neurobiology, 72(12), 1471-1481.

Levengood, J. M., & Beasley, V. R. (2007). Principles of ecotoxicology. In Veterinary Toxicology (pp. 689-708). Elsevier Ltd.

Liu, S., Yan, C., He, W., Chen, B., Zhang, Y., Liu, Q., & Liu, E. (2015). Effects of different tillage practices on soil water-stable aggregation and organic carbon distribution in dryland farming in Northern China. Acta Ecologica Sinica, 35(4), 65-69.

Livak, K. J. and Schmittgen, T. D. (2001). Analysis of relative gene expression data using real-time quantitative PCR and the $2^{-\Delta\Delta CT}$ method. Methods, 25(4), 402-408.

Loeken, M. R. (2004). Free radicals and birth defects. The Journal of Maternal-Fetal & Neonatal Medicine, 15(1), 6-14.

Logan, C. Y., & Nusse, R. (2004). The Wnt signaling pathway in development and disease. Annu. Rev. Cell Dev. Biol., 20, 781-810.

Loh, Y. N., Hedditch, E. L., Baker, L. A., Jary, E., Ward, R. L., & Ford, C. E. (2013). The Wnt signalling pathway is upregulated in an in vitro model of acquired tamoxifen resistant breast cancer. BMC cancer, 13(1), 174.

López-Colomé, A. M., Lee-Rivera, I., Benavides-Hidalgo, R., & López, E. (2017). Paxillin: a crossroad in pathological cell migration. Journal of hematology & oncology, 10(1), 50.

Lorenz, E. S. (2009). Potential health effects of pesticides. Ag Communications and Marketing, 1-8.

Lotti, M., & Moretto, A. (2005). Organophosphate-induced delayed polyneuropathy. Toxicological reviews, 24(1), 37-49.

Lynch, S. M., Mahajan, R., Freeman, L. E. B., Hoppin, J. A., & Alavanja, M. C. (2009). Cancer incidence among pesticide applicators exposed to butylate in the Agricultural Health Study (AHS). Environmental research, 109(7), 860-868.

Ma, P., Wu, Y., Zeng, Q., Gan, Y., Chen, J., Ye, X., & Yang, X. (2013). Oxidative damage induced by chlorpyrifos in the hepatic and renal tissue of Kunming mice and the antioxidant role of vitamin E. Food and chemical toxicology, 58, 177-183.

Madhusudhan, L. (2015). Agriculture Role on Indian Economy. Business and Economics Journal, 6(4), 1.

Madu, E. P. (2015). Teratogenic and embryotoxic effects of orally administered cypermethrin in pregnant albino rats. Journal of Toxicology and Environmental Health Sciences, 7(7), 60-67.

Mai, H., Cachot, J., Brune, J., Geffard, O., Belles, A., Budzinski, H., & Morin, B. (2012). Embryotoxic and genotoxic effects of heavy metals and pesticides on early life stages of Pacific oyster (Crassostrea gigas). Marine pollution bulletin, 64(12), 2663-2670.

Makarenkova, H. P., Ito, M., Govindarajan, V., Faber, S. C., Sun, L., McMahon, G., ... & Lang, R. A. (2000). FGF10 is an inducer and Pax6 a competence factor for lacrimal gland development. Development, 127(12), 2563-2572.

Mandal, A. K., Borude, D. P., Armugasamy, R., Soni, N. R., Jawalkar, D. G., Mahajan, S. W., ... & Goghare, A. D. (1986). New synthetic route to (1r)-cis-(-)-permethrin,(1r)-cis-(+)-cypermethrin and (1r)-cis-(+)-deltamethrin (decis) from (+)-3-care. Tetrahedron, 42(20), 5715-5728.

Marcelle, C., Stark, M. R., & Bronner-Fraser, M. (1997). Coordinate actions of BMPs, Wnts, Shh and noggin mediate patterning of the dorsal somite. Development, 124(20), 3955-3963.

Martin, B. L., & Kimelman, D. (2012). Canonical Wnt signaling dynamically controls multiple stem cell fate decisions during vertebrate body formation. Developmental cell, 22(1), 223-232.

Mascarelli, A. (2013). Growing up with pesticides.

Mathur, H. B., Agarwal, H. C., Johnson, S., & Saikia, N. (2005). Analysis of pesticide residues in blood samples from villages of Punjab. CSE Report, India, 1-15.

Mathur, S. C., & Tannan, S. K. (1999). Future of Indian pesticides industry in next millennium. Pesticide information, 24(4), 9-23.

Matsumaru, D., Haraguchi, R., Miyagawa, S., Motoyama, J., Nakagata, N., Meijlink, F., & Yamada, G. (2011). Genetic analysis of Hedgehog signaling in ventral body wall development and the onset of omphalocele formation. PloS one, 6(1), e16260.

Mayor, R., & Theveneau, E. (2013). The neural crest. Development, 140(11), 2247-2251.

McBratney-Owen, B., Iseki, S., Bamforth, S. D., Olsen, B. R., & Morriss-Kay, G. M. (2008). Development and tissue origins of the mammalian cranial base. Developmental biology, 322(1), 121-132.

McCarthy, N., Liu, J. S., Richarte, A. M., Eskiocak, B., Lovely, C. B., Tallquist, M. D., & Eberhart, J. K. (2016). Pdgfra and Pdgfrb genetically interact during craniofacial development. Developmental Dynamics, 245(6), 641-652.

McLeod, M. J. (1980). Differential staining of cartilage and bone in whole mouse fetuses by alcian blue and alizarin red S. Teratology, 22(3), 299-301.

McQueen, C. (2017). Comprehensive toxicology. Elsevier.

Megason, S. G., & McMahon, A. P. (2002). A mitogen gradient of dorsal midline Wnts organizes growth in the CNS. Development, 129(9), 2087-2098.

Megaw, L., Clemens, T., Dibben, C., Weller, R., & Stock, S. (2017). Pregnancy outcome and ultraviolet radiation; A systematic review. Environmental research, 155, 335-343.

Meulemans, D., & Bronner-Fraser, M. (2004). Gene-regulatory interactions in neural crest evolution and development. Developmental cell, 7(3), 291-299.

Miller, G. T., & Spoolman, S. (2014). Sustaining the earth. Cengage Learning.

Mohammad, A. M., Chowdhury, T., Biswas, B., & Absar, N. (2018). Food Poisoning and Intoxication: A Global Leading Concern for Human Health. In Food Safety and Preservation(pp. 307-352). Academic Press.

Monsoro-Burq, A. H., & Levin, M. (2018). Avian models and the study of invariant asymmetry: how the chicken and the egg taught us to tell right from left. International Journal of Developmental Biology, 62(1-2-3), 63-77.

Moore, K. L., Persaud, T. V. N., & Torchia, M. G. (2018). The Developing Human-E-Book: Clinically Oriented Embryology. Elsevier Health Sciences.

Moore, R., Ferretti, P., Copp, A., & Thorogood, P. (2002). Blocking endogenous FGF-2 activity prevents cranial osteogenesis. Developmental biology, 243(1), 99-114.

Müller, F. (Ed.). (2000). Agrochemicals: composition, production, toxicology, applications. Vch Verlagsgesellschaft Mbh.

Nagar, G., Sharma, A. K., Kumar, S., Saravanan, B. C., Kumar, R., Gupta, S., ... & Ghosh, S. (2018). Molecular mechanism of synthetic pyrethroid and organophosphate resistance in field isolates of Rhipicephalus microplus tick collected from a northern state of India. Experimental and Applied Acarology, 75(3), 319-331.

Narahashi, T. (1996). Neuronal ion channels as the target sites of insecticides. Pharmacology & toxicology, 79(1), 1-14.

Narahashi, T., Carter, D. B., Frey, J., Ginsburg, K., Nagata, K., Roy, M. L., ... & Tatebayashi, H. (1995). Sodium channels and GABAA receptor-channel complex as targets of environmental toxicants. Toxicology letters, 82, 239-245.

Narahashi, T., Frey, J. M., Ginsburg, K. S., & Roy, M. L. (1992). Sodium and GABA-activated channels as the targets of pyrethroids and cyclodienes. Toxicology letters, 64, 429-436.

Narahashi, T., Kuriyama, K., Illes, P., Wirkner, K., Fischer, W., Mühlberg, K., ... & Lallemand, F. (2001). Neuroreceptors and ion channels as targets of alcohol. Alcoholism: clinical and experimental research, 25, 182S-188S.

Nauen, R. (2006). Insecticide mode of action: return of the ryanodine receptor. Pest Management Science: formerly Pesticide Science, 62(8), 690-692.

NCBDDD- Centers for Disease Control and Prevention. (2012). Treatment, autism spectrum disorders.

Needham, J., & Hughes, A. (2015). A history of embryology. Cambridge University Press.

Nelms, B. L., & Labosky, P. A. (2010). Transcriptional control of neural crest development. Developmental Biology, 1(1), 1-227.

Ngo, M. A., O'Malley, M., & Maibach, H. I. (2010). Percutaneous absorption and exposure assessment of pesticides. Journal of Applied Toxicology, 30(2), 91-114.

Nikolopoulou, E., Galea, G. L., Rolo, A., Greene, N. D., & Copp, A. J. (2017). Neural tube closure: cellular, molecular and biomechanical mechanisms. Development, 144(4), 552-566.

Padhye, L. P., Kim, J. H., & Huang, C. H. (2013). Oxidation of dithiocarbamates to yield N-nitrosamines by water disinfection oxidants. Water research, 47(2), 725-736.

Palma, P., Palma, V. L., Fernandes, R. M., Bohn, A., Soares, A. M. V. M., & Barbosa, I. R. (2009). Embryo-toxic effects of environmental concentrations of chlorpyrifos on the crustacean Daphnia magna. Ecotoxicology and Environmental Safety, 72(6), 1714-1718.

Park, J. W., El-Aty, A. A., Lee, M. H., Song, S. O., & Shim, J. H. (2006). Residue analysis of organophosphorus and organochlorine pesticides in fatty matrices by gas chromatography coupled with electron-capture detection. Zeitschrift für Naturforschung C, 61(5-6), 341-346.

Patel, Z. M., & Adhia, R. A. (2005). Birth defects surveillance study. *The Indian Journal of Pediatrics*, *72*(6), 489-491.

Paudyal, B. P. (2008). Organophosphorus poisoning. JNMA; journal of the Nepal Medical Association, 47(172), 251-258.

Pepper, D. (2008). The toxic consequences of the green revolution. US News & World Report.

Pérez-Fernández, V., García, M. Á., & Marina, M. L. (2010). Characteristics and enantiomeric analysis of chiral pyrethroids. Journal of Chromatography A, 1217(7), 968-989.

Perry A.S., Yamamoto T., Ishaaya I. and Perry R.Y. (1998) Applied agriculture. Insecticides in agriculture and environment. Springer, 261 p.

Perry, M. J., Venners, S. A., Chen, X., Liu, X., Tang, G., Xing, H., ... & Xu, X. (2011). Organophosphorous pesticide exposures and sperm quality. Reproductive Toxicology, 31(1), 75-79.

Podgórski, R., Stompor, M., Kubrak, T., & Podgórska, D. (2017). Neural tube defects: risk factors and prevention.

Pradhan, B. K., & Saluja, M. R. (1996). Labour statistics in India: a review. Margin, v. 28, no. 4.

Prakash, N., Brodski, C., Naserke, T., Puelles, E., Gogoi, R., Hall, A., ... & Martinez, S. (2006). A Wnt1-regulated genetic network controls the identity and fate of midbrain-dopaminergic progenitors in vivo. Development, 133(1), 89-98.

Prasad, M. S., Sauka-Spengler, T., & LaBonne, C. (2012). Induction of the neural crest state: control of stem cell attributes by gene regulatory, post-transcriptional and epigenetic interactions. Developmental biology, 366(1), 10-21.

Prefumo, F., & Izzi, C. (2014). Fetal abdominal wall defects. Best practice & research Clinical obstetrics & gynaecology, 28(3), 391-402.

Pung, T., Klein, B., Blodgett, D., Jortner, B., & Ehrich, M. (2006). Examination of concurrent exposure to repeated stress and chlorpyrifos on cholinergic, glutamatergic, and monoamine neurotransmitter systems in rat forebrain regions. International journal of toxicology, 25(1), 65-80.

Putoux, A., Baas, D., Paschaki, M., Morlé, L., Maire, C., Attié-Bitach, T., ... & Durand, B. (2018). Altered GLI3 and FGF8 signaling underlies acrocallosal syndrome phenotypes in Kif7 depleted mice. Human molecular genetics, 28(6), 877-887.

Raees Ahmad, K. (2007). Teratological Effects of Chlorpyrifos in Mice. Iranian Journal of Toxicology, 1(2), 3-3.

Rahman, S. (2015). Green revolution in India: environmental degradation and impact on livestock. Asian Journal of Water, Environment and Pollution, 12(1), 75-80.

Ramakrishnan, S., & Jayaraman, A. (2019). Pesticide Contaminated Drinking Water and Health Effects on Pregnant Women and Children. In Handbook of Research on the Adverse Effects of Pesticide Pollution in Aquatic Ecosystems (pp. 123-136). IGI Global.

Rappazzo, K. M., Warren, J. L., Meyer, R. E., Herring, A. H., Sanders, A. P., Brownstein, N. C., & Luben, T. J. (2016). Maternal residential exposure to agricultural pesticides and birth defects in a 2003 to 2005 North Carolina birth cohort. Birth Defects Research Part A: Clinical and Molecular Teratology, 106(4), 240-249.

Rashid, H., Kagami, M., Ferdous, F., Ma, E., Terao, T., Hayashi, T., & Wagatsuma, Y. (2017). Temperature during pregnancy influences the fetal growth and birth size. Tropical medicine and health, 45(1), 1.

Ray, A., Liu, J., Ayoubi, P., & Pope, C. (2010). Dose-related gene expression changes in forebrain following acute, low-level chlorpyrifos exposure in neonatal rats. Toxicology and applied pharmacology, 248(2), 144-155.

Ray, D. E., Ray, D., & Forshaw, P. J. (2000). Pyrethroid insecticides: poisoning syndromes, synergies, and therapy. Journal of Toxicology: Clinical Toxicology, 38(2), 95-101.

Reid, B. S., Yang, H., Melvin, V. S., Taketo, M. M., & Williams, T. (2011). Ectodermal Wnt/β-catenin signaling shapes the mouse face. Developmental biology, 349(2), 261-269.

Reigart, J. R., & Roberts, J. R. (1999). Agency USEP. Recognition and management of pesticide poisonings. Washington DC: US Environmental Protection Agency.

Retting, K. N., Song, B., Yoon, B. S., & Lyons, K. M. (2009). BMP canonical Smad signaling through Smad1 and Smad5 is required for endochondral bone formation. Development, 136(7), 1093-1104.

Ricceri, L., Markina, N., Valanzano, A., Fortuna, S., Cometa, M. F., Meneguz, A., & Calamandrei, G. (2003). Developmental exposure to chlorpyrifos alters reactivity to environmental and social cues in adolescent mice. Toxicology and applied pharmacology, 191(3), 189-201.

Richtsmeier, J. T., & Flaherty, K. (2013). Hand in glove: brain and skull in development and dysmorphogenesis. Acta neuropathologica, 125(4), 469-489.

Rosman, Y., Makarovsky, I., Bentur, Y., Shrot, S., Dushnistky, T., & Krivoy, A. (2009). Carbamate poisoning: treatment recommendations in the setting of a mass casualties event. The American journal of emergency medicine, 27(9), 1117-1124.

Roy, T. S., Andrews, J. E., Seidler, F. J., & Slotkin, T. A. (1998). Chlorpyrifos elicits mitotic abnormalities and apoptosis in neuroepithelium of cultured rat embryos. Teratology, 58(2), 62-68.

Rull, R. P., Ritz, B., & Shaw, G. M. (2006). Neural tube defects and maternal residential proximity to agricultural pesticide applications. American journal of epidemiology, 163(8), 743-753.

Sadler, T. W. (2010, August). The embryologic origin of ventral body wall defects. In Seminars in pediatric surgery (Vol. 19, No. 3, pp. 209-214). WB Saunders.

Sadler, T. W., & Feldkamp, M. L. (2008, August). The embryology of body wall closure: relevance to gastroschisis and other ventral body wall defects. In American Journal of Medical Genetics Part C: Seminars in Medical Genetics (Vol. 148, No. 3, pp. 180-185). Hoboken: Wiley Subscription Services, Inc., A Wiley Company.

Salinas, P. C. (2005). Retrograde signalling at the synapse: a role for Wnt proteins.

Salvaggio, A., Antoci, F., Messina, A., Ferrante, M., Copat, C., Ruberto, C., ... & Brundo, M. V. (2018). Teratogenic effects of the neonicotinoid thiacloprid on chick embryos (Gallus gallus domesticus). Food and chemical toxicology, 118, 812-820.

Sanborn, M., Kerr, K. J., Sanin, L. H., Cole, D. C., Bassil, K. L., & Vakil, C. (2007). Non-cancer health effects of pesticides: systematic review and implications for family doctors. Canadian Family Physician, 53(10), 1712-1720.

Sandhu, M. A., Saeed, A. A., Khilji, M. S., Ahmed, A., Latif, M. S. Z., & Khalid, N. (2013). Genotoxicity evaluation of chlorpyrifos: a gender related approach in regular toxicity testing. The Journal of toxicological sciences, 38(2), 237-244.

Sarwar, M. (2015). Usage of biorational pesticides with novel modes of action, mechanism and application in crop protection. International Journal of Materials Chemistry and Physics, 1(2), 156-162.

Sawad, A. A., Hana, B. A., & Al-Silawi, A. N. (2009). Morphological study of the skeleton development in chick embryo (Gallus domesticus). Int J Poul Sci, 8, 710-714.

Schock, E. N., Chang, C. F., Youngworth, I. A., Davey, M. G., Delany, M. E., & Brugmann, S. A. (2016). Utilizing the chicken as an animal model for human craniofacial ciliopathies. Developmental biology, 415(2), 326-337.

Schoenwolf, G. C. (2018). Contributions of the chick embryo and experimental embryology to understanding the cellular mechanisms of neurulation. International Journal of Developmental Biology, 62(1-2-3), 49-55.

Sebby, K. (2010). The Green Revolution of the 1960's and Its Impact on Small Farmers in India.

Shao, M., Liu, C., Song, Y., Ye, W., He, W., Yuan, G., ... & Tian, W. (2015). FGF8 signaling sustains progenitor status and multipotency of cranial neural crest-derived mesenchymal cells in vivo and in vitro. Journal of molecular cell biology, 7(5), 441-454.

Sharma, S., Uggini, G. K., Patel, V., Desai, I., & Balakrishnan, S. (2018). Exposure to sub-lethal dose of a combination insecticide during early embryogenesis influences the normal patterning of mesoderm resulting in incomplete closure of ventral body wall of chicks of domestic hen. Toxicology reports, 5, 302-308.

Shaw, G. M., Yang, W., Roberts, E., Kegley, S. E., Padula, A., English, P. B., & Carmichael, S. L. (2014). Early pregnancy agricultural pesticide exposures and risk of gastroschisis among offspring in the San Joaquin Valley of California. Birth Defects Research Part A: Clinical and Molecular Teratology, 100(9), 686-694.

Shen, B., Wei, A., Whittaker, S., Williams, L. A., Tao, H., Ma, D. D., & Diwan, A. D. (2010). The role of BMP-7 in chondrogenic and osteogenic differentiation of human bone marrow multipotent mesenchymal stromal cells in vitro. Journal of cellular biochemistry, 109(2), 406-416.

Shi, X., Gu, A., Ji, G., Li, Y., Di, J., Jin, J., ... & Song, L. (2011). Developmental toxicity of cypermethrin in embryo-larval stages of zebrafish. Chemosphere, 85(6), 1010-1016.

Shiva, V., Sawaya Jank, M., Matus Gardea, J. A., Vega Valdivia, D. D., Mora Flores, J. S., Sayer, J., ... & Montalvo, F. (1991). The violence ot the green revolution: third world agriculture, ecology and politics (No. E14 S552v). IICA, México, DF (México).

Siegfried, B. D. (1993). Comparative toxicity of pyrethroid insecticides to terrestrial and aquatic insects. Environmental Toxicology and Chemistry: An International Journal, 12(9), 1683-1689.

Singh, A. K., Tiwari, M. N., Dixit, A., Upadhyay, G., Patel, D. K., Singh, D., ... & Singh, M. P. (2011). Nigrostriatal proteomics of cypermethrin-induced dopaminergic neurodegeneration: microglial activation-dependent and-independent regulations. Toxicological Sciences, 122(2), 526-538.

Singh, J. (2003). Gastroschisis is caused by the combination of carbon monoxide and protein-zinc deficiencies in mice. Birth Defects Research Part B: Developmental and Reproductive Toxicology, 68(4), 355-362.

Sitarek, K. (2001). Embryolethal and teratogenic effects of carbendazim in rats. Teratogenesis, carcinogenesis, and mutagenesis, 21(5), 335-340.

Slotkin, T. A. (2004). Cholinergic systems in brain development and disruption by neurotoxicants: nicotine, environmental tobacco smoke, organophosphates. Toxicology and applied pharmacology, 198(2), 132-151.

Slotkin, T. A., MacKillop, E. A., Melnick, R. L., Thayer, K. A., & Seidler, F. J. (2008). Developmental neurotoxicity of perfluorinated chemicals modeled in vitro. Environmental health perspectives, 116(6), 716-722.

Smegal, D. C. (2000). Human health risk assessment chlorpyrifos. US Environmental Protection Agency, Office of Prevention, Pesticides and Toxic Substances, Office of Pesticide Programs, Health Effects Division, US Government Printing Office: Washington, DC, USA, 1-131.

Snowball, J., Ambalavanan, M., Cornett, B., Lang, R., Whitsett, J., & Sinner, D. (2015). Mesenchymal Wnt signaling promotes formation of sternum and thoracic body wall. Developmental biology, 401(2), 264-275.

Soderlund, D. M., Clark, J. M., Sheets, L. P., Mullin, L. S., Piccirillo, V. J., Sargent, D., ... & Weiner, M. L. (2002). Mechanisms of pyrethroid neurotoxicity: implications for cumulative risk assessment. Toxicology, 171(1), 3-59.

Solloway, M. J., & Robertson, E. J. (1999). Early embryonic lethality in Bmp5; Bmp7 double mutant mice suggests functional redundancy within the 60A subgroup. Development, 126(8), 1753-1768.

Srinivas Rao, C. H., Venkateswarlu, V., Surender, T., Eddleston, M., & Buckley, N. A. (2005). Pesticide poisoning in south India: opportunities for prevention and improved medical management. Tropical Medicine & International Health, 10(6), 581-588.

Stephenson, R. R. (1982). Aquatic toxicology of cypermethrin. I. Acute toxicity to some freshwater fish and invertebrates in laboratory tests. Aquatic Toxicology, 2(3), 175-185.

Stern, C. D. (2005). The chick: a great model system becomes even greater. Developmental cell, 8(1), 9-17.

Stern, C. D. (2018). The chick model system: a distinguished past and a great future. International Journal of Developmental Biology, 62(1-4).

Stevens, E. A., Mezrich, J. D., & Bradfield, C. A. (2009). The aryl hydrocarbon receptor: a perspective on potential roles in the immune system. Immunology, 127(3), 299-311.

Stevenson, R. E. (Ed.). (2015). *Human malformations and related anomalies* (No. 66). Oxford University Press.

Sulbatos L. (1994). Mammalian toxicology of organophosphorus pesticides. Journal of Toxicology & Environmental Health, 43, 271–189.

Sumon, K. A., Saha, S., van den Brink, P. J., Peeters, E. T., Bosma, R. H., & Rashid, H. (2017). Acute toxicity of chlorpyrifos to embryo and larvae of banded gourami Trichogaster fasciata. Journal of Environmental Science and Health, Part B, 52(2), 92-98.

Sun, C., Zhang, Z., He, P., Zhou, Y., & Xie, X. (2017). Involvement of PI3K/Akt pathway in the inhibition of hepatocarcinoma cell invasion and metastasis induced by SASH1 through downregulating Shh-Gli1 signaling. The international journal of biochemistry & cell biology, 89, 95-100.

Suzuki, A., Sangani, D. R., Ansari, A., & Iwata, J. (2016). Molecular mechanisms of midfacial developmental defects. Developmental Dynamics, 245(3), 276-293.

Taneyhill, L. A. (2016). Neural Crest-Placode Cell Interactions during Cranial Ganglia Assembly. The FASEB Journal, 30(1_supplement), 8-3.

Tao, G., Kahr, P. C., Morikawa, Y., Zhang, M., Rahmani, M., Heallen, T. R., ... & Martin, J. F. (2016). Pitx2 promotes heart repair by activating the antioxidant response after cardiac injury. Nature, 534(7605), 119.

Tateno, C., Ito, S., Tanaka, M., & Yoshitake, A. (1993). Effects of pyrethroid insecticides on gap junctional intercellular communications in Balb/c3T3 cells by dye-transfer assay. Cell biology and toxicology, 9(3), 215-221.

Tebourbi, O., Sakly, M., & Rhouma, K. B. (2011). Molecular mechanisms of pesticide toxicity. In Pesticides in the Modern World-Pests Control and Pesticides Exposure and Toxicity Assessment. InTech.

Thompson, J., & Bannigan, J. (2001). Effects of cadmium on formation of the ventral body wall in chick embryos and their prevention by zinc pretreatment. Teratology, 64(2), 87-97.

Tian, Y., Ishikawa, H., Yamaguchi, T., Yamauchi, T., & Yokoyama, K. (2005). Teratogenicity and developmental toxicity of chlorpyrifos: maternal exposure during organogenesis in mice. Reproductive Toxicology, 20(2), 267-270.

Timofeeva, O. A., Roegge, C. S., Seidler, F. J., Slotkin, T. A., & Levin, E. D. (2008). Persistent cognitive alterations in rats after early postnatal exposure to low doses of the organophosphate pesticide, diazinon. Neurotoxicology and teratology, 30(1), 38-45.

Tirado, M. C., Clarke, R., Jaykus, L. A., McQuatters-Gollop, A., & Frank, J. M. (2010). Climate change and food safety: A review. Food Research International, 43(7), 1745-1765.

Tiwari, R. K., Singh, S., & Pandey, R. S. (2019). Assessment of acute toxicity and biochemical responses to chlorpyrifos, cypermethrin and their combination exposed earthworm, Eudrilus eugeniae. Toxicology reports, 6, 288-297.

Torchinsky, A., Fein, A., & Toder, V. (2005). Teratogen-induced apoptotic cell death: Does the apoptotic machinery act as a protector of embryos exposed to teratogens?. Birth Defects Research Part C: Embryo Today: Reviews, 75(4), 353-361.

Tordoir, W. F., & van Sittert, N. J. (1994). Organochlorines. Toxicology, 91(1), 51.

Trainer, V. L., Mcphee, J. C., Boutelet-Bochan, H., Baker, C., Scheuer, T., Babin, D., ... & Catterall, W. A. (1997). High affinity binding of pyrethroids to the α subunit of brain sodium channels. Molecular pharmacology, 51(4), 651-657.

Trainor, P. A., & Krumlauf, R. (2000). Patterning the cranial neural crest: Hinbrain segmentation and hox gene plasticity. Nature Reviews Neuroscience, 1(2), 116.

Uggini, G. K. and Suresh, B. (2013). Genotoxic effects of two different classes of nsecticide in developing chick embryos. Toxicological & Environmental Chemistry, 95(6), 992-1005.

Uggini, G. K., Patel, P. V., & Balakrishnan, S. (2012). Embryotoxic and teratogenic effects of pesticides in chick embryos: a comparative study using two commercial formulations. Environmental toxicology, 27(3), 166-174.

van den Berg, H., Zaim, M., Yadav, R. S., Soares, A., Ameneshewa, B., Mnzava, A., ... & Ejov, M. (2012). Global trends in the use of insecticides to control vector-borne diseases. *Environmental health perspectives*, *120*(4), 577-582.

Van Dyk, J. S., & Pletschke, B. (2011). Review on the use of enzymes for the detection of organochlorine, organophosphate and carbamate pesticides in the environment. chemosphere, 82(3), 291-307.

Vijverberg, h. P., & Bercken, j. V. D. (1982). Action of pyrethroid insecticides on the vertebrate nervous system. Neuropathology and applied neurobiology, 8(6), 421-440.

Vorkamp, K., & Riget, F. F. (2014). A review of new and current-use contaminants in the Arctic environment: evidence of long-range transport and indications of bioaccumulation. Chemosphere, 111, 379-395.

Voronova, A., Coyne, E., Al Madhoun, A., Fair, J. V., Bosiljcic, N., St-Louis, C., ... & Skerjanc, I. S. (2012). Hedgehog signalling regulates MyoD expression and activity. Journal of Biological Chemistry, jbc-M112.

Voronova, A., Coyne, E., Al Madhoun, A., Fair, J. V., Bosiljcic, N., St-Louis, C., ... & Skerjanc, I. S. (2013). Hedgehog signaling regulates MyoD expression and activity. Journal of Biological Chemistry, 288(6), 4389-4404.

Wada, N., Nohno, T., & Kuratani, S. (2011). Dual origins of the prechordal cranium in the chicken embryo. Developmental biology, 356(2), 529-540.

Wan, M., & Cao, X. (2005). BMP signaling in skeletal development. Biochemical and biophysical research communications, 328(3), 651-657.

Wang, S., Garcia, M. D., Lopez, A. L., Overbeek, P. A., Larin, K. V., & Larina, I. V. (2017). Dynamic imaging and quantitative analysis of cranial neural tube closure in the mouse embryo using optical coherence tomography. Biomedical optics express, 8(1), 407-419.

Wang, X. P., Suomalainen, M., Jorgez, C. J., Matzuk, M. M., Werner, S., & Thesleff, I. (2004). Follistatin regulates enamel patterning in mouse incisors by asymmetrically inhibiting BMP signaling and ameloblast differentiation. Developmental cell, 7(5), 719-730.

Webster, W. S., & Abela, D. (2007). The effect of hypoxia in development. Birth Defects Research Part C: Embryo Today: Reviews, 81(3), 215-228.

Whitney, K. D., Seidler, F. J., & Slotkin, T. A. (1995). Developmental neurotoxicity of chlorpyrifos: cellular mechanisms. Toxicology and applied pharmacology, 134(1), 53-62.

WHO (1989). Cypermethrin: EHC 82. Geneva: World Health Organisation.

Wilde, J. J., Petersen, J. R., & Niswander, L. (2014). Genetic, epigenetic, and environmental contributions to neural tube closure. Annual review of genetics, 48, 583-611.

Wilkie, A. O., & Morriss-Kay, G. M. (2001). Genetics of craniofacial development and malformation. Nature Reviews Genetics, 2(6), 458.

Williams, P. M., Col, L., & Fletcher, S. (2010). Health effects of prenatal radiation exposure. leukemia, 7(8), 10-11.

Williams, T. (2008). Animal models of ventral body wall closure defects: a personal perspective on gastroschisis. In American Journal of Medical Genetics Part C: Seminars in Medical Genetics (Vol. 148, No. 3, pp. 186-191). Hoboken: Wiley Subscription Services, Inc., A Wiley Company.

Wilson, J. G. (1973). Environment and birth defects. Academic Pr.

Wilson, R. D., & Johnson, M. P. (2004). Congenital abdominal wall defects: an update. Fetal diagnosis and therapy, 19(5), 385-398.

Wilson, S. I., & Edlund, T. (2001). Neural induction: toward a unifying mechanism. Nature neuroscience, 4(11s), 1161.

Wine-Lee, L., Ahn, K. J., Richardson, R. D., Mishina, Y., Lyons, K. M., & Crenshaw, E. B. (2004). Signaling through BMP type 1 receptors is required for development of interneuron cell types in the dorsal spinal cord. Development, 131(21), 5393-5403.

Wormser, U., Izrael, M., Van der Zee, E. A., Brodsky, B., & Yanai, J. (2005). A chick model for the mechanisms of mustard gas neurobehavioral teratogenicity. Neurotoxicology and teratology, 27(1), 65-71.

Xavier, G. M., Seppala, M., Barrell, W., Birjandi, A. A., Geoghegan, F., & Cobourne, M. T. (2016). Hedgehog receptor function during craniofacial development. Developmental biology, 415(2), 198-215.

Xia, Y. P., Dai, R. L., Li, Y. N., Mao, L., Xue, Y. M., He, Q. W., ... & Hu, B. (2012). The protective effect of sonic hedgehog is mediated by the phosphoinositide [corrected] 3-kinase/AKT/Bcl-2 pathway in cultured rat astrocytes under oxidative stress. Neuroscience, 209, 1-11.

Xiao, C., Ogle, S. A., Schumacher, M. A., Schilling, N., Tokhunts, R. A., Orr-Asman, M. A., ... & Zavros, Y. (2010). Hedgehog signaling regulates E-cadherin expression for the maintenance of the actin cytoskeleton and tight junctions. American Journal of Physiology-Gastrointestinal and Liver Physiology, 299(6), G1252-G1265.

Xu, C., Tu, W., Lou, C., Hong, Y., & Zhao, M. (2010). Enantioselective separation and zebrafish embryo toxicity of insecticide beta-cypermethrin. Journal of environmental sciences, 22(5), 738-743.

Yang, L. M., & Ornitz, D. M. (2019). Sculpting the skull through neurosensory epithelial–mesenchymal signaling. Developmental Dynamics, 248(1), 88-97.

Yardley, N., & García-Castro, M. I. (2012). FGF signaling transforms non-neural ectoderm into neural crest. Developmental biology, 372(2), 166-177.

Yin, X., Zhu, G., Li, X. B., and Liu, S. (2009). Genotoxicity evaluation of chlorpyrifos to amphibian Chinese toad (Amphibian: Anura) by comet assay and micronucleus test. Mutation Research/Genetic Toxicology and Environmental Mutagenesis, 680(1), 2-6.

Yip, R. K., Chan, D., & Cheah, K. S. (2019). Mechanistic insights into skeletal development gained from genetic disorders. Current topics in developmental biology, 133, 343-385.

Yoon, B. S., & Lyons, K. M. (2004). Multiple functions of BMPs in chondrogenesis. Journal of cellular biochemistry, 93(1), 93-103.

Yu, Y., Yang, Y., Zhao, X., Liu, X., Xue, J., Zhang, J., & Yang, A. (2017). Exposure to the mixture of organophosphorus pesticides is embryotoxic and teratogenic on gestational rats during the sensitive period. Environmental toxicology, 32(1), 139-146.

Zhang, L., Li, H., Yu, J., Cao, J., Chen, H., Zhao, H., ... & Zhou, R. (2014). Ectodermal Wnt signaling regulates abdominal myogenesis during ventral body wall development. Developmental biology, 387(1), 64-72.

Zhao, M., Qiao, M., Harris, S. E., Chen, D., Oyajobi, B. O., & Mundy, G. R. (2006). The zinc finger transcription factor Gli2 mediates bone morphogenetic protein 2 expression in osteoblasts in response to hedgehog signaling. Molecular and cellular biology, 26(16), 6197-6208.

Zheng, Q., Olivier, K., Won, Y. K., & Pope, C. N. (2000). Comparative cholinergic neurotoxicity of oral chlorpyrifos exposures in preweanling and adult rats. Toxicological Sciences, 55(1), 124-132.

**WEBLIOGRAPHY**

http://ib.bioninja.com.au

http://saalmoh17.blogspot.com/p/gastrulat.html