
Bibliography

- Almer G, Teismann P, Stevic Z, Halaschek-Wiener J, Deecke L, Kostic V, Przedborski S. Increased levels of the pro-inflammatory prostaglandin PGE₂ in CSF from ALS patients. *Neurology*. 2002;58(8):1277-9.
- Amaya E, Stein PA, Musci TJ, Kirschner MW. FGF signalling in the early specification of mesoderm in *Xenopus*. *Development*. 1993;118(2):477-487.
- Anderson C, Khan MA, Wong F, Solovieva T, Oliveira NM, Baldock RA, Tickle C, Burt DW, Stern CD. A strategy to discover new organizers identifies a putative heart organizer. *Nature Communications*. 2016;7:12656.
- Anderson GC. Induction of term labor with intravenous PGF₂ alpha: a review. *Prostaglandins*. 1973;4(5):765.
- Antonucci R, Zaffanello M, Puxeddu E, Porcella A, Cuzzolin L, Dolores Pilloni M, Fanos V. Use of non-steroidal anti-inflammatory drugs in pregnancy: impact on the fetus and newborn. *Current Drug Metabolism*. 2012;13(4):474-90.
- Anusree P, Saradamba A, Tailor N, Desai I, Suresh B. Caudal fin regeneration is regulated by COX-2 induced PGE₂ in teleost fish, *Poecilia Latipinna*. *Journal of Cell and Tissue Research*. 2011;11(2):2795.
- Armelin HA. Pituitary Extracts and Steroid Hormones in the Control of 3T3 Cell Growth. *Proceedings of the National Academy of Sciences*. 1973;70(9):2702-2706.
- Aulie RP. Caspar Friedrich Wolff and his 'Theoria Generationis', 1759. *Journal of the History of Medicine and Allied Sciences*. 1961:124-44.
- Azar Y, Eyal-Giladi H. Marginal zone cells-the primitive streak-inducing component of the primary hypoblast in the chick. *Development*. 1979;52(1):79-88.
- Baguma-Nibasheka M, Barclay C, Li AW, Geldenhuys L, Porter GA, Blay J, Casson AG, Murphy PR. Selective cyclooxygenase-2 inhibition suppresses basic fibroblast growth factor expression in human esophageal adenocarcinoma. *Molecular Carcinogenesis: Published in cooperation with the University of Texas MD Anderson Cancer Center*. 2007;46(12):971-80.
- Bakhle YS, Botting RM. Cyclooxygenase-2 and its regulation in inflammation. *Mediators of Inflammation*. 1996;5(5):305-23.
- Bamshad M, Lin RC, Law DJ, Watkins WS, Krakowiak PA, Moore ME, Franceschini P, Lala R, Holmes LB, Gebuhr TC, Bruneau BG. Mutations in human TBX3 alter limb, apocrine and genital development in ulnar-mammary syndrome. *Nature Genetics*. 1997;16(3):311-5.
- Bastida MF, Pérez-Gómez R, Trofka A, Zhu J, Rada-Iglesias A, Sheth R, Stadler HS, Mackem S, Ros MA. The formation of the thumb requires direct modulation of Gli3 transcription by Hoxa13. *Proceedings of the National Academy of Sciences*. 2020;117(2):1090-6.
- Bauer J, Ripperger A, Frantz S, Ergün S, Schwedhelm E, Benndorf RA. Pathophysiology of isoprostanes in the cardiovascular system: implications of isoprostane-mediated thromboxane A₂ receptor activation. *British Journal of Pharmacology*. 2014;171(13):3115-31.
- Beck V, Jaburek M, Demina T, Rupprecht A, Porter RK, Jezek P, Pohl EE. Polyunsaturated fatty acids activate human uncoupling proteins 1 and 2 in planar lipid bilayers. *The FASEB Journal*. 2007;21(4):1137-44.
- Bellaïrs R. The development of the nervous system in chick embryos, studied by electron microscopy. *Development*. 1959;7(1):94-115.

- Benoliel R, Sharav Y, Eliav E. Neurovascular orofacial pain. *The Journal of the American Dental Association*. 2010;141(9):1094-6.
- Bhagwat SS, Hamann PR, Still WC, Bunting S, Fitzpatrick FA. Synthesis and structure of the platelet aggregation factor thromboxane A₂. *Nature*. 1985;315(6019):511-3.
- Birmingham B, Buvanendran A. Nonsteroidal anti-inflammatory drugs, acetaminophen, and COX-2 inhibitors. In *Practical Management of Pain*. 2014;553-568.
- Blankenship AL, Hilscherova K, Nie M, Coady KK, Villalobos SA, Kannan K, Giesy JP. Mechanisms of TCDD-induced abnormalities and embryo lethality in white leghorn chickens. *Comparative Biochemistry and Physiology - C Toxicology and Pharmacology*. 2003;136(1):47-62.
- Bleyl SB, Schoenwolf GC. What is the timeline of important events during pregnancy that may be disrupted by a teratogenic exposure. *Birth Defects Research*. 2010;7.
- Bligh EG, Dyer WJ. A rapid method of total lipid extraction and purification. *Canadian Journal of Biochemistry and Physiology*. 1959;37(8):911-7.
- Bolli R, Shinmura K, Tang XL, Kodani E, Xuan YT, Guo Y, Dawn B. Discovery of a new function of cyclooxygenase (COX)-2: COX-2 is a cardioprotective protein that alleviates ischemia/reperfusion injury and mediates the late phase of preconditioning. *Cardiovascular Research*. 2002;55(3):506-19.
- Bosetti F, Choi SH. Rethinking the role of cyclooxygenase-1 in neuroinflammation: more than homeostasis. 2010.
- Botha JH, Robinson KM, Ramchurren N, Reddi K, Norman RJ. Human esophageal carcinoma cell lines: prostaglandin production, biological properties, and behavior in nude mice. *Journal of the National Cancer Institute*. 1986;76(6):1053-6.
- Bowen J, Hinchliffe JR, Horder TJ, Reeve AM. The fate map of the chick forelimb-bud and its bearing on hypothesized developmental control mechanisms. *Anatomy and Embryology*. 1989;179(3):269-83.
- Bradford MM. A rapid and sensitive method for the quantitation of microgram quantities of protein utilizing the principle of protein-dye binding. *Analytical Biochemistry*. 1976;72(1-2):248-54.
- Brash AR. Arachidonic acid as a bioactive molecule. *The Journal of Clinical Investigation*. 2001;107(11):1339-45.
- Braun T, Bober E, Buschhausen-Denker G, Kohtz S, Grzeschik KH, Arnold HH, Kotz S. Differential expression of myogenic determination genes in muscle cells: possible autoactivation by the Myf gene products. *The EMBO Journal*. 1989;8(12):3617-25.
- Breil C, Abert Vian M, Zemb T, Kunz W, Chemat F. "Bligh and Dyer" and Folch methods for solid-liquid-liquid extraction of lipids from microorganisms. Comprehension of solvation mechanisms and towards substitution with alternative solvents. *International Journal of Molecular Sciences*. 2017;18(4):708.
- Brito, M. *Biochemistry of Differentiation and morphogenesis*. 1982.
- Brooks P, Kubler P. Etoricoxib for arthritis and pain management. *Therapeutics and Clinical Risk Management*. 2006;2(1):45.
- Brose SA, Thuen BT, Golovko MY. LC/MS/MS method for analysis of E2 series prostaglandins and isoprostanes. *Journal of Lipid Research*. 2011;52(4):850-9.
- Brose SA, Baker AG, Golovko MY. A Fast One-Step Extraction and UPLC-MS/MS Analysis for E₂/D₂ Series Prostaglandins and Isoprostanes. *Lipids*. 2013;48(4):411-9.
- Brown SC, Fassati A, Popplewell L, Page AM, Henry MD, Campbell KP, Dickson G. Dystrophic phenotype induced in vitro by antibody blockade of muscle alpha-dystroglycan-laminin interaction. *Journal of Cell Science*. 1999;112(2):209-16.

- Brune K, Hinz B. The discovery and development of antiinflammatory drugs. *Arthritis & Rheumatism: Official Journal of the American College of Rheumatology*. 2004;50(8):2391-9.
- Buch PR, Ranadive I, Desai I, Balakrishnan S. Cyclooxygenase-2 interacts with MMP and FGF pathways to promote epimorphic regeneration in lizard *Hemidactylus flaviviridis*. *Growth Factors*. 2018;36(1-2):69-77.
- Buch PR, Sarkate P, Uggini GK, Desai I, Balakrishnan S. Inhibition of cyclooxygenase-2 alters Wnt/ β -catenin signaling in the regenerating tail of lizard *Hemidactylus flaviviridis*. *Tissue Engineering and Regenerative Medicine*. 2017;14(2):171-8.
- Burke JE, Dennis EA. Phospholipase A 2 biochemistry. *Cardiovascular Drugs and Therapy*. 2009;23(1):49-59.
- Bygdeman M. Pharmacokinetics of prostaglandins. *Best Practice & Research Clinical Obstetrics & Gynaecology*. 2003;17(5):707-16.
- Cadavid AP. Aspirin: the mechanism of action revisited in the context of pregnancy complications. *Frontiers in Immunology*. 2017;8:261.
- Cairns JM. Growth of normal and talpid2 chick wing buds: an experimental analysis. *Vertebrate Limb and Somite Morphogenesis*. 1977:123-37.
- Campbell KP, Kahl SD. Association of dystrophin and an integral membrane glycoprotein. *Nature*. 1989;338(6212):259-62.
- Cao H, Xiao L, Park G, Wang X, Azim AC, Christman JW, van Breemen RB. An improved LC-MS/MS method for the quantification of prostaglandins E2 and D2 production in biological fluids. *Analytical Biochemistry*. 2008;372(1):41-51.
- Cappellari O, Mantuano P, De Luca A. "The Social Network" and Muscular Dystrophies: The Lesson Learnt about the Niche Environment as a Target for Therapeutic Strategies. *Cells*. 2020;9(7):1659.
- Caprioli G, Giusti F, Ballini R, Sagratini G, Vila-Donat P, Vittori S, Fiorini D. Lipid nutritional value of legumes: Evaluation of different extraction methods and determination of fatty acid composition. *Food Chemistry*. 2016;192:965-71.
- Cathcart MC, Reynolds JV, O'Byrne KJ, Pidgeon GP. The role of prostacyclin synthase and thromboxane synthase signaling in the development and progression of cancer. *Biochimica et Biophysica Acta (BBA)-Reviews on Cancer*. 2010;1805(2):153-66.
- Chapman SC, Collignon J, Schoenwolf GC, Lumsden A. Improved method for chick whole-embryo culture using a filter paper carrier. *Developmental dynamics: an official publication of the American Association of Anatomists*. 2001;220(3):284-9.
- Cheng Y, Austin SC, Rocca B, Koller BH, Coffman TM, Grosser T, Lawson JA, FitzGerald GA. Role of prostacyclin in the cardiovascular response to thromboxane A2. *Science*. 2002;296(5567):539-41.
- Choi SH, Aid S, Bosetti F. The distinct roles of cyclooxygenase-1 and-2 in neuroinflammation: implications for translational research. *Trends in Pharmacological Sciences*. 2009;30(4):174-81.
- Chung-Davidson YW, Rees CB, Bryan MB, Li W. Neurogenic and neuroendocrine effects of goldfish pheromones. *Journal of Neuroscience*. 2008;28(53):14492-9.
- Collier HOJ, Shorley PG. Antagonism By Mefenamic and Flufenamic Acids of the Bronchoconstrictor Action of Kinins in the Guinea-Pig. *British Journal of Pharmacology and Chemotherapy*. 1963;20:345-351.
- Collier HOJ. New light on how Aspirin works. *Nature Publishing Group*. 1969;223:35-37.

- Cracowski JL, Durand T, Bessard G. Isoprostanes as a biomarker of lipid peroxidation in humans: physiology, pharmacology and clinical implications. *Trends in Pharmacological Sciences*. 2002;23(8):360-6.
- Craven LL. Prevention of coronary and cerebral thromboses. *Mississippi Valley Med Journal*. 1952;74:213-5.
- Crossley PH, Minowada G, MacArthur CA, Martin GR. Roles for FGF8 in the induction, initiation, and maintenance of chick limb development. *Cell*. 1996;84(1):127-36.
- Davidson MK, Lindsey JR, Davis JK. Requirements and selection of an animal model. *Israel Journal of Medical Sciences*. 1987;23(6):551-5.
- Davies SS, Roberts II LJ. F2-isoprostanes as an indicator and risk factor for coronary heart disease. *Free Radical Biology and Medicine*. 2011;50(5):559-66.
- Davis RL, Weintraub H, Lassar AB. Expression of a single transfected cDNA converts fibroblasts to myoblasts. *Cell*. 1987;51(6):987-1000.
- de Both NJ. The developmental potencies of the regeneration blastema of the axolotl limb. *Wilhelm Roux'Archiv für Entwicklungsmechanik der Organismen*. 1970;165(3):242-76.
- Delannoy E, Courtois A, Freund-Michel V, Leblais V, Marthan R, Muller B. Hypoxia-induced hyperreactivity of pulmonary arteries: role of cyclooxygenase-2, isoprostanes, and thromboxane receptors. *Cardiovascular Research*. 2010;85(3):582-92.
- DeRuiter C. Somites: Formation and Role in Developing the Body Plan. *Embryo Project Encyclopedia*. 2012.
- Dhama K, Latheef SK, Dadar M, Samad HA, Munjal A, Khandia R, Karthik K, Tiwari R, Yattoo MI, Chakraborty S, Iqbal H. Molecular Signatures of Biomarkers with a Special Reference to Stress and Related Diseases/Disorders: Diagnostic, Prognostic and Therapeutic Values-Current Progress and Futuristic Vision. *Frontiers in Molecular Biosciences*. 2019;6:91.
- Dinchuk JE, Car BD, Focht RJ, Johnston JJ, Jaffee BD, Covington MB, Contel NR, Eng VM, Collins RJ, Czerniak PM, Gorry SA. Renal abnormalities and an altered inflammatory response in mice lacking cyclooxygenase II. *Nature*. 1995;378(6555):406-9.
- Ding J, Dai R, Yang L, He C, Xu K, Liu S, Zhao W, Xiao L, Luo L, Zhang Y, Meng H. Inheritance and establishment of gut microbiota in chickens. *Frontiers in Microbiology*. 2017;8:1967.
- DiSabato DJ, Quan N, Godbout JP. Neuroinflammation: the devil is in the details. *Journal of Neurochemistry*. 2016;139:136-53.
- Dreser H. Pharmakologisches über aspirin (acetylsalicylsäure). *Archiv für die gesamte Physiologie des Menschen und der Tiere*. 1899;76(5-6):306-18.
- Duan P, Bonewald LF. The role of the wnt/ β -catenin signaling pathway in formation and maintenance of bone and teeth. *The International Journal of Biochemistry & Cell Biology*. 2016;77:23-9.
- Durudogan L. NSAID use increases risk of miscarriage in early pregnancy. *Clinical Research in Practice: The Journal of Team Hippocrates*. 2019;5(2):12.
- Duval M. *Atlas d'embryologie*. 1889.
- Edel J, Vered M, Grinstein-Koren O, Porat D, Lukach L, Pettesh J, Kelner A, Ianculovici C, Kaplan I. Oral adverse reactions associated with etoricoxib, a common pain medication. *The Journal of the American Dental Association*. 2019;150(6):556-61.
- Eida AM. Prostanoids and parasitic diseases. *Parasitologists United Journal*. 2015;8(1):38.
- Euler UV. An adrenaline-like action in extracts from the prostatic and related glands. *The Journal of Physiology*. 1934;81(1):102.
- Evans CB, Pillai S, Goldyne ME. Endogenous prostaglandin E2 modulates calcium-induced differentiation in human skin keratinocytes. *Prostaglandins, Leukotrienes and Essential Fatty Acids*. 1993;49(4):777-81.

- Eyal-Giladi H, Kochav S. From cleavage to primitive streak formation: a complementary normal table and a new look at the first stages of the development of the chick: I. General Morphology. *Developmental Biology*. 1976;49(2):321-37.
- Faure S, de Santa Barbara P, Roberts DJ, Whitman M. Endogenous patterns of BMP signaling during early chick development. *Developmental Biology*. 2002;244(1):44-65.
- Fenn JB, Mann M, Meng CK, Wong SF, Whitehouse CM. Electrospray ionization for mass spectrometry of large biomolecules. *Science*. 1989;246(4926):64-71.
- FitzGerald GA. Mechanisms of platelet activation: thromboxane A2 as an amplifying signal for other agonists. *The American Journal of Cardiology*. 1991;68(7):B11-5.
- Flower DR, Attwood TK, North AC. Structure and sequence relationships in the lipocalins and related proteins. *Protein Science*. 1993;2(5):753-761.
- Fluck RA, Krok KL, Bast BA, Michaud SE, Kim CE. Gravity influences the position of the dorsoventral axis in medaka fish embryos (*Oryzias latipes*). *Development, Growth & Differentiation*. 1998;40(5):509-18.
- Folch J, Lees M, Stanley GS. A simple method for the isolation and purification of total lipides from animal tissues. *Journal of Biological Chemistry*. 1957;226(1):497-509.
- Forsell H. Gastric mucosal defence mechanisms: a brief review. *Scandinavian Journal of Gastroenterology*. 1988;23(155):23-8.
- Forwood MR. Inducible cyclo-oxygenase (COX-2) mediates the induction of bone formation by mechanical loading in vivo. *Journal of Bone and Mineral Research*. 1996;11(11):1688-93.
- Fougerousse F. Human-mouse differences in the embryonic expression patterns of developmental control genes and disease genes. *Human Molecular Genetics*. 2002;9(2):165-173.
- Freeman WH, Bracegirdle B. *Atlas of Embryology*. 1970.
- Fu S, Ramanujam KS, Wong A, Fantry GT, Drachenberg CB, James SP, Meltzer SJ, Wilson KT. Increased expression and cellular localization of inducible nitric oxide synthase and cyclooxygenase 2 in *Helicobacter pylori* gastritis. *Gastroenterology*. 1999;116(6):1319-29.
- Fujiwara M, Uchida T, Osumi-Yamashita N, Eto K. Uchida rat (rSey): A new mutant rat with craniofacial abnormalities resembling those of the mouse Sey mutant. *Differentiation*. 1994;57:31-38.
- Gandhi AS, Budac D, Khayrullina T, Staal R, Chandrasena G. Quantitative analysis of lipids: a higher-throughput LC-MS/MS-based method and its comparison to ELISA. *Future Science OA*. 2017;3(1):FSO157.
- Ganesan A, Proudfoot J. *Analogue-based drug discovery*. Fischer J, Ganellin CR, editors. Hoboken, NJ: Wiley-VCH; 2010.
- Gao L, Zackert WE, Hasford JJ, Danekis ME, Milne GL, Remmert C, Reese J, Yin H, Tai HH, Dey SK, Porter NA. Formation of Prostaglandins E2 and D2 via the Isoprostane Pathway A mechanism for the generation of bioactive prostaglandins independent of cyclooxygenase. *Journal of Biological Chemistry*. 2003;278(31):28479-89.
- Giacomoni PU. Ageing, science and the cosmetics industry: The micro-inflammatory model serves as a basis for developing effective anti-ageing products for the skin. *EMBO Reports*. 2005;6:45-8.
- Gibb S, Maroto M, Dale JK. The segmentation clock mechanism moves up a notch. *Trends in Cell Biology*. 2010;20(10):593-600.
- Gierse JK, McDonald JJ, Hauser SD, Rangwala SH, Koboldt CM, Seibert K. A single amino acid difference between cyclooxygenase-1 (COX-1) and- 2 (COX-2) reverses the selectivity of COX-2 specific inhibitors. *Journal of Biological Chemistry*. 1996;271(26):15810-4.
- Gilbert, R. *Principles of Development in Biology*. 2007.

- Goessling W, Allen RS, Guan X, Jin P, Uchida N, Dovey M, Harris JM, Metzger ME, Bonifacino AC, Stroncek D, Stegner J. Prostaglandin E2 enhances engraftment of human cord blood stem cells and shows long-term safety in preclinical non-human primate transplant models. *Cell Stem Cell*. 2011;8(4):445-458.
- Goetz Moro M, Vargas Sánchez PK, Lupepsa AC, Baller EM, Nobre Franco GC. Cyclooxygenase biology in renal function-literature review. *Revista Colombiana de Nefrología*. 2017;4(1):27-37.
- Golovko MY, Murphy EJ. An improved LC-MS/MS procedure for brain prostanoid analysis using brain fixation with head-focused microwave irradiation and liquid-liquid extraction. *Journal of Lipid Research*. 2008;49(4):893-902.
- Gomez I, Foudi N, Longrois D, Norel X. The role of prostaglandin E2 in human vascular inflammation. *Prostaglandins, Leukotrienes and Essential Fatty Acids*. 2013;89(2-3):55-63.
- Griffin DE, Wesselingh SL, McArthur JC. Elevated central nervous system prostaglandins in human immunodeficiency virus-associated dementia. *Annals of Neurology: Official Journal of the American Neurological Association and the Child Neurology Society*. 1994;35(5):592-7.
- Grima EM, Medina AR, Giménez AG, Sánchez Pérez JA, Camacho FG, García Sánchez JL. Comparison between extraction of lipids and fatty acids from microalgal biomass. *Journal of the American Oil Chemists' Society*. 1994;71(9):955-9.
- Gupta S, Srivastava M, Ahmad N, Bostwick DG, Mukhtar H. Over-expression of cyclooxygenase-2 in human prostate adenocarcinoma. *The Prostate*. 2000;42(1):73-8.
- Haldane S. Nonsteroidal antiinflammatory drugs. In *Small Animal Critical Care Medicine*. 2015;395-399.
- Halter F, Tarnawski AS, Schmassmann A, Peskar BM. Cyclooxygenase 2—implications on maintenance of gastric mucosal integrity and ulcer healing: controversial issues and perspectives. *Gut*. 2001;49(3):443-53.
- Hamburger V, Hamilton HL. A series of normal stages in the development of the chick embryo. *Journal of Morphology*. 1951;88(1):49-92.
- Hanna VS, Hafez EA. Synopsis of arachidonic acid metabolism: A review. *Journal of Advanced Research*. 2018;11:23-32.
- Hara S. Prostaglandin terminal synthases as novel therapeutic targets. *Proceedings of the Japan Academy. Series B*. 2017;93(9):703-23.
- Harland R. Neural induction. *Current Opinion in Genetics & Development*. 2000;10(4):357-62.
- Harris RC. Cyclooxygenase-2 in the kidney. *Journal of the American Society of Nephrology*. 2000;11(12):2387-94.
- Harris RE, Alshafie GA, Abou-Issa H, Seibert K. Chemoprevention of breast cancer in rats by celecoxib, a cyclooxygenase 2 inhibitor. *Cancer Research*. 2000;60(8):2101-3.
- Hawkey CJ. New drug classes. *Lancet*. 1999;353:307-314.
- Hay ED. Origin and role of collagen in the embryo. *American Zoologist*. 1973;13(4):1085-107.
- Hayaishi O. Molecular mechanisms of sleep-wake regulation: a role of prostaglandin D2. *Philosophical Transactions of the Royal Society of London. Series B: Biological Sciences*. 2000;355(1394):275-80.
- Henry MD, Campbell KP. Dystroglycan inside and out. *Current Opinion in Cell Biology*. 1999;11(5):602-7.
- Hernández-Martínez R, Covarrubias L. Interdigital cell death function and regulation: new insights on an old programmed cell death model. *Development, Growth & Differentiation*. 2011;53(2):245-58.
- Hickman CP, Roberts LS, Hickman FM, Hickman CP. *Integrated Principles of Zoology*. 1984.

- Hickman CP. *Integrated Principles of Zoology*. 1961
- Hillier LW, Miller W, Birney E, Warren W, Hardison RC, Ponting CP, Bork P, Burt DW, Groenen MA, Delany ME, Dodgson JB. Sequence and comparative analysis of the chicken genome provide unique perspectives on vertebrate evolution. *Nature*. 2014;423(10):695-777.
- Hla T, Bishop-Bailey D, Liu CH, Schaefer HJ, Trifan OC. Cyclooxygenase-1 and-2 isoenzymes. *The International Journal of Biochemistry & Cell Biology*. 1999;31(5):551-7.
- Ho AT, Palla AR, Blake MR, Yucel ND, Wang YX, Magnusson KE, Holbrook CA, Kraft PE, Delp SL, Blau HM. Prostaglandin E2 is essential for efficacious skeletal muscle stem-cell function, augmenting regeneration and strength. *Proceedings of the National Academy of Sciences*. 2017;114(26):6675-84.
- Honda T, Kabashima K. Prostanoids and leukotrienes in the pathophysiology of atopic dermatitis and psoriasis. *International Immunology*. 2019;31(9):589-95.
- Hsueh YC, Wu JM, Yu CK, Wu KK, Hsieh PC. Prostaglandin E2 promotes post-infarction cardiomyocyte replenishment by endogenous stem cells. *EMBO molecular medicine*. 2014;6(4):496-503.
- Hudson N, Hawkey CJ. Non-steroidal anti-inflammatory drug-associated upper gastrointestinal ulceration and complications. *European Journal of Gastroenterology & Hepatology*. 1993;5(6):412-9.
- Hui Q, Jin Z, Li X, Liu C, Wang X. FGF family: from drug development to clinical application. *International Journal of Molecular Sciences*. 2018;19(7):1875.
- Hunt P, Krumlauf R. Hox codes and positional specification in vertebrate embryonic axes. *Annual Review of Cell Biology*. 1992;8(1):227-56.
- Hutson MR, Kirby ML. Model systems for the study of heart development and disease: cardiac neural crest and conotruncal malformations. In *Seminars in cell & developmental biology* 2007;18(1):101-110.
- Imamura M, Nakamura A, Mannen H, Takeda SI. Characterization of WWP1 protein expression in skeletal muscle of muscular dystrophy chickens. *The Journal of Biochemistry*. 2016;159(2):171-9.
- Intarapat S, Stern CD. Chick stem cells: current progress and future prospects. *Stem Cell Research*. 2013;11(3):1378-92.
- Jang TJ, Jeon KH, Jung KH. Cyclooxygenase-2 expression is related to the epithelial-to-mesenchymal transition in human colon cancers. *Yonsei Medical Journal*. 2009;50(6):818-24.
- Jang Y, Kim M, Hwang SW. Molecular mechanisms underlying the actions of arachidonic acid-derived prostaglandins on peripheral nociception. *Journal of Neuroinflammation*. 2020;17(1):30.
- Janković BD, Isaković K, Lukić ML, Vujanović NL, Petrović S, Marković BM. Immunological capacity of the chicken embryo. I. Relationship between the maturation of lymphoid tissues and the occurrence of cell-mediated immunity in the developing chicken embryo. *Immunology*. 1975;29(3):497.
- Janssen LJ. Isoprostanes and lung vascular pathology. *American Journal of Respiratory Cell and Molecular Biology*. 2008;39(4):383-9.
- Jaruratanasirikul S, Tangtrakulwanich B, Rachatawiriyakul P, Sriplung H, Limpitikul W, Dissaneevate P, Khunnarakpong N, Tantichantakarun P. Prevalence of congenital limb defects: Data from birth defects registries in three provinces in Southern Thailand. *Congenital Anomalies*. 2016;56(5):203-8.

- Jeffrey JE, Aspden RM. Cyclooxygenase inhibition lowers prostaglandin E₂ release from articular cartilage and reduces apoptosis but not proteoglycan degradation following an impact load in vitro. *Arthritis Research & Therapy*. 2007;9(6):1-0.
- Jimenez-Mallebrera C, Brown SC, Sewry CA, Muntoni F. Congenital muscular dystrophy: molecular and cellular aspects. *Cellular and Molecular Life Sciences CMLS*. 2005;62(7-8):809-23.
- Jin L, Wu J, Bellusci S, Zhang JS. Fibroblast growth factor 10 and vertebrate limb development. *Frontiers in Genetics*. 2019;9:705.
- Jonczyk AW, Piotrowska-Tomala KK, Skarzynski DJ. Effects of prostaglandin F_{2α} (PGF_{2α}) on cell-death pathways in the bovine corpus luteum (CL). *BMC Veterinary Research*. 2019;15(1):1-6.
- Kaczynski P, Kowalewski MP, Waclawik A. Prostaglandin F_{2α} promotes angiogenesis and embryo-maternal interactions during implantation. *Reproduction*. 2016;151(5):539-52.
- Kain KH, Miller JW, Jones-Paris CR, Thomason RT, Lewis JD, Bader DM, Barnett JV, Zijlstra A. The chick embryo as an expanding experimental model for cancer and cardiovascular research. *Developmental Dynamics*. 2014;243(2):216-28.
- Kalinka AT, Varga KM, Gerrard DT, Preibisch S, Corcoran DL, Jarrells J, Tomancak P. Gene expression divergence recapitulates the developmental hourglass model. *Nature*. 2010;468(7325):811-816
- Kanda H, Kobayashi K, Yamanaka H, Noguchi K. COX-1-dependent prostaglandin D₂ in microglia contributes to neuropathic pain via DP₂ receptor in spinal neurons. *Glia*. 2013;61(6):943-56.
- Kato S, Aihara E, Yoshii K, Takeuchi K. Dual action of prostaglandin E₂ on gastric acid secretion through different EP-receptor subtypes in the rat. *American Journal of Physiology-Gastrointestinal and Liver Physiology*. 2005;289(1):G64-9.
- Kawakami I, Noda S, Kurihara K, Okuma K. Vegetalising factor extracted from the fish swimbladder and tested on presumptive ectoderm of *Triturus* embryos. *Wilhelm Roux's Archives of Developmental Biology*. 1977;182(1):1-7
- Keibel F. *Normentafeln zur Entwicklungsgeschichte der Wirbelthiere: Des Huhnes (Gallus domesticus)*. 1900.
- Kij A, Mateuszuk L, Sitek B, Przyborowski K, Zakrzewska A, Wandzel K, Walczak M, Chlopicki S. Simultaneous quantification of PGI₂ and TXA₂ metabolites in plasma and urine in NO-deficient mice by a novel UHPLC/MS/MS method. *Journal of Pharmaceutical and Biomedical Analysis*. 2016;129:148-54.
- Kim GH. Renal effects of prostaglandins and cyclooxygenase-2 inhibitors. *Electrolyte & Blood Pressure*. 2008;6(1):35-41.
- Kim TI, Lee YC, Lee KH, Han JH, Chon CY, Moon YM, Kang JK, Park IS. Effects of Nonsteroidal Anti-Inflammatory Drugs on *Helicobacter pylori*-Infected Gastric Mucosae of Mice: Apoptosis, Cell Proliferation, and Inflammatory Activity. *Infection and Immunity*. 2001;69(8):5056-63.
- Kimelman D, Kirschner M. Synergistic induction of Mesoderm by FGF and TGF-β and the identification of an mRNA coding for FGF in the early *Xenopus* embryo. *Cell*. 1987;51:869-877.
- Klein-Nulend J, Burger EH, Semeins CM, Raisz LG, Pilbeam CC. Pulsating fluid flow stimulates prostaglandin release and inducible prostaglandin G/H synthase mRNA expression in primary mouse bone cells. *Journal of Bone and Mineral Research*. 1997;12(1):45-51.
- Knoetgen H, Teichmann U, Wittler L, Viebahn C, Kessel M. Anterior neural induction by nodes from rabbits and mice. *Developmental Biology*. 2000;225(2):370-80.

- Korn MJ, Cramer KS. Windowing chicken eggs for developmental studies. *Journal of Visualized Experiments*. 2007;(8):e306.
- Kotpal RL. *Modern text book of Zoology: Vertebrates*. 2010.
- Kuehl FA, Egan RW. Prostaglandins, arachidonic acid, and inflammation. *Science*. 1980;210(4473):978-84.
- Kuligowski J, Escobar J, Quintas G, Lliso I, Torres-Cuevas I, Nunez A, Cubells E, Rook D, van Goudoever JB, Vento M: Analysis of lipid peroxidation biomarkers in extremely low gestational age neonate urines by UPLC-MS/MS. *Analytical Bioanalytical Chemistry*. 2014;406(18):4345-56.
- Lanza-Jacoby S, Dicker AP, Miller S, Rosato FE, Flynn JT, Lavorgna SN, Burd R. Cyclooxygenase (COX)-2-dependent effects of the inhibitor SC236 when combined with ionizing radiation in mammary tumor cells derived from HER-2/neu mice. *Molecular Cancer Therapeutics*. 2004;3(4):417-24.
- Lee SH, Williams MV, DuBois RN, Blair IA. Targeted lipidomics using electron capture atmospheric pressure chemical ionization mass spectrometry. *Rapid Communications in Mass Spectrometry*. 2003;17(19):2168-76.
- Lewandoski M, Sun X, Martin GR. Fgf8 signalling from the AER is essential for normal limb development. *Nature Genetics*. 2000;26(4):460-3.
- Li DK, Ferber JR, Odouli R, Quesenberry C. Use of nonsteroidal antiinflammatory drugs during pregnancy and the risk of miscarriage. *American Journal of Obstetrics and Gynecology*. 2018;219(3):275-e1.
- Li DK, Liu L, Odouli R. Exposure to non-steroidal anti-inflammatory drugs during pregnancy and risk of miscarriage: population based cohort study. *The BMJ*. 2003;327(7411):368.
- Lim H, Paria BC, Das SK, Dinchuk JE, Langenbach R, Trzaskos JM, Dey SK. Multiple female reproductive failures in cyclooxygenase 2-deficient mice. *Cell*. 1997;91(2):197-208.
- Lindner T, Klose R, Streckenbach F, Stahnke T, Hadlich S, Kühn JP, Guthoff RF, Wree A, Neumann AM, Frank M, Glass Ä. Morphologic and biometric evaluation of chick embryo eyes in ovo using 7 Tesla MRI. *Scientific Reports*. 2017;7(1):1-9.
- Liu B, Luo W, Zhang Y, Li H, Zhang J, Tan XR, Zhou Y. Concomitant activation of functionally opposing prostacyclin and thromboxane prostanoid receptors by cyclo-oxygenase-1-mediated prostacyclin synthesis in mouse arteries. *Experimental Physiology*. 2012;97(7):895-904.
- Liu CH, Chang SH, Narko K, Trifan OC, Wu MT, Smith E, Haudenschild C, Lane TF, Hla T. Overexpression of cyclooxygenase-2 is sufficient to induce tumorigenesis in transgenic mice. *Journal of Biological Chemistry*. 2001;276(21):18563-9.
- Livak KJ, Schmittgen TD. Analysis of relative gene expression data using real-time quantitative PCR and the 2⁻ΔΔCT method. *Methods*. 2001;25(4):402-8.
- Loftin CD, Trivedi DB, Tiano HF, Clark JA, Lee CA, Epstein JA, Morham SG, Breyer MD, Nguyen M, Hawkins BM, Goulet JL. Failure of ductus arteriosus closure and remodeling in neonatal mice deficient in cyclooxygenase-1 and cyclooxygenase-2. *Proceedings of the National Academy of Sciences*. 2001;98(3):1059-64.
- Lu X, Xie W, Reed D, Bradshaw WS, Simmons DL. Nonsteroidal antiinflammatory drugs cause apoptosis and induce cyclooxygenases in chicken embryo fibroblasts. *Proceedings of the National Academy of Sciences*. 1995;92(17):7961-5.
- Ma YT. *Biomedical Acupuncture for Sports and Trauma Rehabilitation E-Book: Dry Needling Techniques*. Elsevier Health Sciences. 2010.
- Maden M. RA Signaling in Limb Development and Regeneration in Different Species. In *The Biochemistry of Retinoid Signaling III*. 2020;87-117).

- Majerus PW. Arachidonate metabolism in vascular disorders. *The Journal of Clinical Investigation*. 1983;72(5):1521-5.
- Malpighi M. De ovo incubato observationes, J. 1673.
- Mao AS, Mooney DJ. Regenerative medicine: current therapies and future directions. *Proceedings of the National Academy of Sciences*. 2015;112(47):14452-9.
- Mariani FV, Ahn CP, Martin GR. Genetic evidence that FGFs have an instructive role in limb proximal–distal patterning. *Nature*. 2008;453(7193):401-5.
- Masoodi, M. and Nicolaou, A., 2006. Lipidomic analysis of twenty-seven prostanoids and isoprostanes by liquid chromatography/electrospray tandem mass spectrometry. *Rapid Communications in Mass Spectrometry: An International Journal Devoted to the Rapid Dissemination of Up-to-the-Minute Research in Mass Spectrometry*, 20(20):3023-3029.
- Matsuzaki T, Matsumoto S, Kasai T, Yoshizawa E, Okamoto S, Yoshikawa HY, Taniguchi H, Takebe T. Defining lineage-specific membrane fluidity signatures that regulate adhesion kinetics. *Stem cell reports*. 2018;11(4):852-60.
- McCarthy DD, Chalmers TM. Hematological complications of phenylbutazone therapy: Review of the literature and report of two cases. *Canadian Medical Association Journal*. 1964;90(18):1061.
- McGreevy JW, Hakim CH, McIntosh MA, Duan D. Animal models of Duchenne muscular dystrophy: from basic mechanisms to gene therapy. *Disease Models & Mechanisms*. 2015;8(3):195-213.
- McMurry J, Mondragón CH, Pozo VG. *Química orgánica*. International Thomson. 2001.
- Mezouar S, Frère C, Darbousset R, Mege D, Crescence L, Dignat-George F, Panicot-Dubois L, Dubois C. Role of platelets in cancer and cancer-associated thrombosis: Experimental and clinical evidences. *Thrombosis Research*. 2016;139:65-76.
- Miner J, Hoffhines A. The discovery of aspirin's antithrombotic effects. *Texas Heart Institute Journal*. 2007;34(2):179.
- Miyatake S, Shimizu-Motohashi Y, Takeda SI, Aoki Y. Anti-inflammatory drugs for Duchenne muscular dystrophy: focus on skeletal muscle-releasing factors. *Drug design, Development and Therapy*. 2016;10:2745.
- Mohs RC, Greig NH. Drug discovery and development: Role of basic biological research. *Alzheimer's & Dementia: Translational Research & Clinical Interventions*. 2017;3(4):651-7.
- Morgenstern J, Fleming T, Kadiyska I, Brings S, Groener JB, Nawroth P, Hecker M, Brune M. Sensitive mass spectrometric assay for determination of 15-deoxy- Δ 12, 14-prostaglandin J 2 and its application in human plasma samples of patients with diabetes. *Analytical and Bioanalytical Chemistry*. 2018;410(2):521-8.
- Morrow JD, Awad JA, Boss HJ, Blair IA, Roberts LJ. Non-cyclooxygenase-derived prostanoids (F2-isoprostanes) are formed in situ on phospholipids. *Proceedings of the National Academy of Sciences*. 1992;89(22):10721-5.
- Morrow JD, Hill KE, Burk RF, Nammour TM, Badr KF, Roberts L2. A series of prostaglandin F2-like compounds are produced in vivo in humans by a non-cyclooxygenase, free radical-catalyzed mechanism. *Proceedings of the National Academy of Sciences*. 1990;87(23):9383-7.
- Morrow JD, Roberts LJ. The isoprostanes: unique bioactive products of lipid peroxidation. *Progress in Lipid Research*. 1997;36(1):1-21.
- Moss L. What genes can't do?. 2002.
- Murakami M, Nakashima K, Kamei D, Masuda S, Ishikawa Y, Ishii T, Ohmiya Y, Watanabe K, Kudo I. Cellular prostaglandin E2 production by membrane-bound prostaglandin E synthase-2 via both cyclooxygenases-1 and -2. *J. Biological Chemistry*. 2003;278:37937-37947.

- Musiek ES, Gao L, Milne GL, Han W, Everhart MB, Wang D, Backlund MG, DuBois RN, Zanoni G, Vidari G, Blackwell TS. Cyclopentenone isoprostanes inhibit the inflammatory response in macrophages. *Journal of Biological Chemistry*. 2005;280(42):35562-70.
- Navarro E, Serrano-Heras G, Castaño MJ, Solera JJ. Real-time PCR detection chemistry. *Clinica Chimica Acta*. 2015;439:231-50.
- Nayak AK, Panigrahi PP. Solubility enhancement of etoricoxib by cosolvency approach. *ISRN Physical Chemistry*. 2012.
- Needham J, Hughes A. *A history of embryology*. 2015.
- Nusse R, van Ooyen A, Cox D, Fung YK, Varmus H. Mode of proviral activation of a putative mammary oncogene (int-1) on mouse chromosome 15. *Nature*. 1984;307(5947):131-6.
- Ofori B, Oraichi D, Blais L, Rey E, Bérard A. Risk of congenital anomalies in pregnant users of non-steroidal anti-inflammatory drugs: A nested case-control study. *Birth Defects Research Part B: Developmental and Reproductive Toxicology*. 2006;77(4):268-79.
- Oshima M, Dinchuk JE, Kargman SL, Oshima H, Hancock B, Kwong E, Trzaskos JM, Evans JF, Taketo MM. Suppression of intestinal polyposis in Apc Δ 716 knockout mice by inhibition of cyclooxygenase 2 (COX-2). *Cell*. 1996;87(5):803-9.
- Paganini-Hill A, Chao A, Ross RK, Henderson BE. Aspirin use and chronic diseases: a cohort study of the elderly. *British Medical Journal*. 1989;299(6710):1247-50.
- Paganinihill A. Aspirin and colorectal cancer: the Leisure World cohort revisited. *Preventive medicine*. 1995;24(2):113-5.
- Pajni-Underwood S, Wilson CP, Elder C, Mishina Y, Lewandoski M. BMP signals control limb bud interdigital programmed cell death by regulating FGF signaling. *Development*. 2007;134(12):2359-68.
- Palumbo S. Pathogenesis and progression of multiple sclerosis: the role of arachidonic acid-mediated neuroinflammation. *Exon Publication*. 2017;111-23.
- Pannunzio A, Coluccia M. Cyclooxygenase-1 (COX-1) and COX-1 inhibitors in cancer: a review of oncology and medicinal chemistry literature. *Pharmaceuticals*. 2018;11(4):101.
- Parrett ML, Harris R, Joarder F, Ross M, Clausen K, Robertson F. Cyclooxygenase-2 gene expression in human breast cancer. *International Journal of Oncology*. 1997;10(3):503-7.
- Parsad R. *Some Statistical Techniques for Bio-efficacy Trials*. 2010:62-76.
- Pearce JM. *The Controversial Story of Aspirin*. *World Neurology: The Official Newsletter of the World Federation of Neurology*. 2014.
- Pilbeam CC, Choudhary S, Blackwell K, Raisz LG. Prostaglandins and bone metabolism. In *Principles of Bone Biology*. 2008;1235-1271
- Pinczowski D, Ekbom A, Baron J, Yuen J, Adami HO. Risk factors for colorectal cancer in patients with ulcerative colitis: a case-control study. *Gastroenterology*. 1994;107(1):117-20.
- Pourquié O. Somite formation in the chicken embryo. *International Journal of Developmental Biology*. 2018;62(1-2-3):57-62.
- Puppolo M, Varma D, Jansen SA. A review of analytical methods for eicosanoids in brain tissue. *Journal of Chromatography B*. 2014;964:50-64.
- Purushothaman S, Elewa A, Seifert AW. Fgf-signaling is compartmentalized within the mesenchyme and controls proliferation during salamander limb development. *eLife*. 2019;8:e48507.
- Rajaram S, Murawala H, Buch P, Patel S, Balakrishnan S. Inhibition of BMP signaling reduces MMP-2 and MMP-9 expression and obstructs wound healing in regenerating fin of teleost fish *Poecilia latipinna*. *Fish Physiology and Biochemistry*. 2016;42(2):787-94.

- Ranong CN, Sukcharoen N. Analgesic effect of etoricoxib in secondary dysmenorrhea: a randomized, double-blind, crossover, controlled trial. *The Journal of Reproductive Medicine*. 2007;52(11):1023-9.
- Reese J, Brown N, Paria BC, Morrow J, Dey SK. COX-2 compensation in the uterus of COX-1 deficient mice during the pre-implantation period. *Molecular and Cellular Endocrinology*. 1999;150(1-2):23-31.
- Ricciotti E, FitzGerald GA. Prostaglandins and inflammation. *Arteriosclerosis, Thrombosis, and Vascular Biology*. 2011;31(5):986-1000.
- Rocha PN, Carvalho EM. Prostanoids modulate inflammation and alloimmune responses during graft rejection. *Brazilian Journal of Medical and Biological Research*. 2005;38(12):1759-68.
- Rodrigues AD, Halpin RA, Geer LA, Cui D, Woolf EJ, Matthews CZ, Gottesdiener KM, Larson PJ, Lasseter KC, Agrawal NG. Absorption, metabolism, and excretion of etoricoxib, a potent and selective cyclooxygenase-2 inhibitor, in healthy male volunteers. *Drug Metabolism and Disposition*. 2003;31(2):224-32.
- Rosenkranz B, Kitajima W, Frölich JC. Relevance of urinary 6-keto-prostaglandin F1 α determination. *Kidney international*. 1981;19(6):755-9.
- Ross WD, Smith JA. In *The Works of Aristotle: Metaphysica*, by WD Ross. 1908.
- Rowley AF, Vogan CL, Taylor GW, Clare AS. Prostaglandins in non-insectan invertebrates: recent insights and unsolved problems. *Journal of Experimental Biology*. 2005;208(1):3-14.
- Rowning BA, Wells J, Wu M, Gerhart JC, Moon RT, Larabell CA. Microtubule-mediated transport of organelles and localization of β -catenin to the future dorsal side of *Xenopus* eggs. *Proceedings of the National Academy of Sciences*. 1997;94(4):1224-9.
- Rucker D, Dhamoon AS. *Physiology, thromboxane A2* StatPearls. Treasure Island: StatPearls Publishing LLC. 2019.
- Ruff KJ, DeVore DP, Leu MD, Robinson MA. Eggshell membrane: a possible new natural therapeutic for joint and connective tissue disorders. Results from two open-label human clinical studies. *Clinical Interventions in Aging*. 2009;4:235.
- Rugarli E. The Kallmann syndrome gene product expressed in COS cells is cleaved on the cell surface to yield a diffusible component. *Human Molecular Genetics*. 2002;5(8):1109-1115.
- Ryan AK, Blumberg B, Rodriguez-Esteban C, Yonei-Tamura S, Tamura K, Tsukui T, de La Peña J, Sabbagh W, Greenwald J, Choe S, Norris DP. *Pitx2* determines left-right asymmetry of internal organs in vertebrates. *Nature*. 1998;394(6693):545-51.
- Salani S, Donadoni C, Rizzo F, Bresolin N, Comi GP, Corti S. Generation of skeletal muscle cells from embryonic and induced pluripotent stem cells as an in vitro model and for therapy of muscular dystrophies. *Journal of Cellular and Molecular Medicine*. 2012;16(7):1353-64.
- Salvado MD, Alfranca A, Haeggström JZ, Redondo JM. Prostanoids in tumor angiogenesis: therapeutic intervention beyond COX-2. *Trends in Molecular Medicine*. 2012;18(4):233-43.
- Salzet M. Anticoagulants and inhibitors of platelet aggregation derived from leeches. *FEBS letters*. 2001;492(3):187-92.
- Sanchez-Fernandez C, Lorda-Diez CI, Hurlé JM, Montero JA. The methylation status of the embryonic limb skeletal progenitors determines their cell fate in chicken. *Communications Biology*. 2020;3(1):1-2.
- Saunders Jr JW, Gasseling MT, Cairns JM. The differentiation of prospective thigh mesoderm grafted beneath the apical ectodermal ridge of the wing bud in the chick embryo. *Developmental Biology*. 1959;1(3):281-301.
- Saunders Jr JW. The proximo-distal sequence of origin of the parts of the chick wing and the role of the ectoderm. *Journal of Experimental Zoology*. 1948;108(3):363-403.

- Saunders JW. Death in embryonic systems. *Science*. 1966;154(3749):604-12.
- Sbardella E, Greco A, Stromillo ML, Prosperini L, Puopolo M, Cefaro LA, Pantano P, De Stefano N, Minghetti L, Pozzilli C. Isoprostanes in clinically isolated syndrome and early multiple sclerosis as biomarkers of tissue damage and predictors of clinical course. *Multiple Sclerosis Journal*. 2013;19(4):411-7.
- Schinko JB, Kreuzer N, Offen N, Posnien N, Wimmer EA, Bucher G. Divergent functions of orthodenticle, empty spiracles and buttonhead in early head patterning of the beetle *Tribolium castaneum* (Coleoptera). *Developmental Biology*. 2008;317(2):600-13.
- Schmidt R, Coste O, Geisslinger G. LC-MS/MS-analysis of prostaglandin E2 and D2 in microdialysis samples of rats. *Journal of Chromatography B*. 2005;826(1-2):188-97.
- Schreinemachers DM, Everson RB. Aspirin use and lung, colon, and breast cancer incidence in a prospective study. *Epidemiology*. 1994:138-46.
- Sellers RS, Radi ZA, Khan NK. Pathophysiology of cyclooxygenases in cardiovascular homeostasis. *Veterinary Pathology*. 2010;47(4):601-13.
- Semina EV, Reiter R, Leysens NJ, Alward WL, Small KW, Datson NA, Siegel-Bartelt J, Bierke-Nelson D, Bitoun P, Zabel BU, Carey JC. Cloning and characterization of a novel bicoid-related homeobox transcription factor gene, RIEG, involved in Rieger syndrome. *Nature Genetics*. 1996;14(4):392-9.
- Sheng J, Vannela R, Rittmann BE. Evaluation of methods to extract and quantify lipids from *Synechocystis* PCC 6803. *Bioresource Technology*. 2011;102(2):1697-703.
- Shim M, Foley J, Anna C, Mishina Y, Eling T. Embryonic expression of cyclooxygenase-2 causes malformations in axial skeleton. *Journal of Biological Chemistry*. 2010;285(21):16206-17.
- Simmons DL, Botting RM, Hla T. Cyclooxygenase isozymes: the biology of prostaglandin synthesis and inhibition. *Pharmacological Reviews*. 2004;56(3):387-437.
- Singh AM, Sun Y, Li L, Zhang W, Wu T, Zhao S, Qin Z, Dalton S. Cell-cycle control of bivalent epigenetic domains regulates the exit from pluripotency. *Stem cell reports*. 2015;5(3):323-36.
- Slack JM, Darlington BG, Heath JK, Godsave SF. Mesoderm induction in early *Xenopus* embryos by heparin-binding growth factors. *Nature*. 1987;326(6109):197-200.
- Smith JC. A mesoderm-inducing factor is produced by *Xenopus* cell line. *Development*. 1987;99(1):3-14.
- Smith WL, Urade Y, Jakobsson PJ. Enzymes of the cyclooxygenase pathways of prostanoid biosynthesis. *Chemical Reviews*. 2011;111(10):5821-65.
- Sneider W. The discovery of heroin. *The Lancet*. 1998;352(9141):1697-9.
- Spratt Jr NT, Haas H. Integrative mechanisms in development of the early chick blastoderm. I. Regulative potentiality of separated parts. *Journal of Experimental Zoology*. 1960;145(2):97-137.
- Spurney RF, Fan PY, Ruiz P, Sanfilippo F, Pisetsky DS, Coffman TM. Thromboxane receptor blockade reduces renal injury in murine lupus nephritis. *Kidney International*. 1992;41(4):973-82.
- Srivastava KC, Clausen J. Stability of prostaglandin E compounds in solution. *Lipids*. 1973;8(10):592-4.
- Stanfield KM, Bell RR, Lisowski AR, English ML, Saldeen SS, Khan KN. Expression of cyclooxygenase-2 in embryonic and fetal tissues during organogenesis and late pregnancy. *Birth Defects Research Part A: Clinical and Molecular Teratology*. 2003;67(1):54-8.
- Stanley DW. Eicosanoids. 2015.
- Steno N, May MT. On the Passage of Yolk into the Intestines of the Chick. *Journal of the History of Medicine and Allied Sciences*. 1950:119-43.

- Stephenson FH. Calculations for molecular biology and biotechnology. 2016.
- St-Germain ME, Gagnon V, Parent S, Asselin E. Regulation of COX-2 protein expression by Akt in endometrial cancer cells is mediated through NF- κ B/I κ B pathway. *Molecular Cancer*. 2004;3(1):1-1.
- Straube S. Anti-inflammatory and antipyretic analgesics and drugs used in gout. In *Side Effects of Drugs Annual*. Elsevier. 2012;34:181-193.
- Streit A, Stern CD. Establishment and maintenance of the border of the neural plate in the chick: involvement of FGF and BMP activity. *Mechanisms of Development*. 1999;82(1-2):51-66.
- Sugimoto Y, Yamasaki A, Segi E, Tsuboi K, Aze Y, Nishimura T, Oida H, Yoshida N, Tanaka T, Katsuyama M, Hasumoto KY. Failure of parturition in mice lacking the prostaglandin F receptor. *Science*. 1997;277(5326):681-3.
- Sun X, Mariani FV, Martin GR. Functions of FGF signalling from the apical ectodermal ridge in limb development. *Nature*. 2002;418(6897):501-8.
- Taber L, Chiu CH, Whelan J. Assessment of the arachidonic acid content in foods commonly consumed in the American diet. *Lipids*. 1998;33(12):1151-1157.
- Tahara Y, Obara K. A novel shell-less culture system for chick embryos using a plastic film as culture vessels. *The Journal of Poultry Science*. 2014;0130043.
- Takeuchi K, Amagase K. Roles of prostaglandin E and EP receptors in mucosal protection and ulcer healing in the gastrointestinal tract. *Archives of Digestive Disorders*. 2017;1(2):8-16.
- Tallima H, El Ridi R. Arachidonic acid: physiological roles and potential health benefits-a review. *Journal of Advanced Research*. 2018;11:33-41.
- Tan CL, Knight ZA. Regulation of body temperature by the nervous system. *Neuron*. 2018;98(1):31-48.
- Tanabe Y, Jessell TM. Diversity and pattern in the developing spinal cord. *Science*. 1996;274(5290):1115-23.
- Terzi M, Altun G, Şen S, Kocaman A, Kaplan AA, Yurt KK, Kaplan S. The use of non-steroidal anti-inflammatory drugs in neurological diseases. *Journal of Chemical Neuroanatomy*. 2018;87:12-24.
- Thill M, Becker S, Fischer D, Cordes T, Hornemann A, Diedrich K, SALEHIN D, Friedrich M. Expression of prostaglandin metabolising enzymes COX-2 and 15-PGDH and VDR in human granulosa cells. *Anticancer Research*. 2009;29(9):3611-8.
- Thun MJ, Henley SJ, Patrono C. Nonsteroidal anti-inflammatory drugs as anticancer agents: mechanistic, pharmacologic, and clinical issues. *Journal of the National Cancer Institute*. 2002;94(4):252-66.
- Tickle C. The contribution of chicken embryology to the understanding of vertebrate limb development. *Mechanisms of Development*. 2004;121(9):1019-29.
- Towers M, Mahood R, Yin Y, Tickle C. Integration of growth and specification in chick wing digit-patterning. *Nature*. 2008;452(7189):882-6.
- Towers M, Tickle C. Growing models of vertebrate limb development. *Development*. 2009;136(2):179-90.
- Tripathi KD. *Essentials of medical pharmacology*. 2013.
- Ullrich V, Zou MH, Bachschmid M. New physiological and pathophysiological aspects on the thromboxane A₂-prostacyclin regulatory system. *Biochimica et Biophysica Acta*. 2001;1532:1-14.
- Urade Y, Eguchi N. Lipocalin-type and hematopoietic prostaglandin D synthases as a novel example of functional convergence. *Prostaglandins & other Lipid Mediators*. 2002;68:375-82.

- Urja V, Khaire K, Balakrishnan S, Uggini GK. Chick embryonic cells as a source for generating in vitro model of muscle cell dystrophy. *In Vitro Cellular & Developmental Biology-Animal*. 2018;54(10):756-69.
- Vance JE, Vance DE. *Biochemistry of lipids, lipoproteins and membranes*. 2008.
- Vane JR. Inhibition of prostaglandin synthesis as a mechanism of action for Aspirin-like drugs. *Nature*. 1971;231:232-235.
- Vargesson N, Clarke JD, Vincent K, Coles C, Wolpert L, Tickle C. Cell fate in the chick limb bud and relationship to gene expression. *Development*. 1997;124(10):1909-18.
- Vichai V, Suyarnsesthakorn C, Pittayakhajonwut D, Sriklung K, Kirtikara K. Positive feedback regulation of COX-2 expression by prostaglandin metabolites. *Inflammation Research*. 2005;54(4):163-72.
- Vijayaraghavan S, Huang B, Blumenthal EM, Berg DK. Arachidonic acid as a possible negative feedback inhibitor of nicotinic acetylcholine receptors on neurons. *Journal of Neuroscience*. 1995;15(5):3679-87.
- Visconti R, Iversen T, Cottrell J. A Review of Dysregulated Osteoblast and Osteoclast Coupling in Bone Disease and Failure. *Journal of Bone Research*. 2019;7:200
- von Baer KE. *Ueber Entwicklungsgeschichte der Thiere: Beobachtung und Reflexion*. Mit vier Kupfertafeln. Bornträger; 1837.
- Waddington CH. Experiments on embryonic induction: Part I. The competence of the extra-embryonic ectoderm in the chick. *Journal of Experimental Biology*. 1934;11(3):212-7.
- Waddington CH. The origin of competence for lens formation in the amphibia. *Journal of Experimental Biology*. 1936;13(1):86-91.
- Walker C. Are all oral COX-2 selective inhibitors the same? a consideration of celecoxib, etoricoxib, and diclofenac. *International Journal of Rheumatology*. 2018.
- Wallace JL. How do NSAIDs cause ulcer disease? *Bailliere's Best Practice and Research in Clinical Gastroenterology*. 2000;14(1):147-159.
- Wang D, DuBois RN. Role of prostanoids in gastrointestinal cancer. *The Journal of Clinical Investigation*. 2018;128(7):2732-42.
- Wang LH, Tsai AL, Hsu PY. Substrate binding is the rate-limiting step in thromboxane synthase catalysis. *Journal of Biological Chemistry*. 2001;276(18):14737-43.
- Wang Y, Xu J, Meng Y, Adcock IM, Yao X. Role of inflammatory cells in airway remodeling in COPD. *International Journal of Chronic Obstructive Pulmonary Disease*. 2018;13:3341.
- Welte MA, Gould AP. Lipid droplet functions beyond energy storage. *Biochimica et Biophysica Acta (BBA)-Molecular and Cell Biology of Lipids*. 2017;1862(10):1260-72.
- Whittle BJ. Role of prostaglandins in the defense of the gastric mucosa. *Brain research bulletin*. 1980;5:7-14.
- Wolpert L. Much more from the chicken's egg than breakfast-a wonderful model system. *Mechanisms of Development*. 2004;121(9):1015-7.
- Wong S, Ordean A, Kahan M, Gagnon R, Hudon L, Basso M, Bos H, Crane J, Davies G, Delisle MF, Farine D. Substance use in pregnancy. *Journal of Obstetrics and Gynaecology Canada*. 2011;33(4):367-84.
- Wongrakpanich S, Wongrakpanich A, Melhado K, Rangaswami J. A comprehensive review of non-steroidal anti-inflammatory drug use in the elderly. *Aging and Disease*. 2018;9(1):143.
- Wright WE, Sassoon DA, Lin VK. Myogenin, a factor regulating myogenesis, has a domain homologous to MyoD. *Cell*. 1989;56(4):607-17.

- Xie WL, Chipman JG, Robertson DL, Erikson RL, Simmons DL. Expression of a mitogen-responsive gene encoding prostaglandin synthase is regulated by mRNA splicing. *Proceedings of the National Academy of Sciences of the United States of America*. 1991;88(7):2692-2696.
- Yamada T. Induction of specific differentiation by samples of proteins and nucleoproteins in the isolated ectoderm of *Triturus-gastrulae*. *Experientia*. 1958;14(3):81-87.
- Yokoyama T, Copeland NG, Jenkins NA, Montgomery CA, Elder FF, Overbeek PA. Reversal of left-right asymmetry: a situs inversus mutation. *Science*. 1993;260(5108):679-82.
- Zaslona Z, Peters-Golden M. Prostanoids in asthma and COPD: actions, dysregulation, and therapeutic opportunities. *Chest*. 2015;148(5):1300-6.
- Zhang J, Wang JH. Prostaglandin E 2 (PGE 2) exerts biphasic effects on human tendon stem cells. *PloS one*. 2014;9(2):e87706.
- Zhang MZ, Wang JL, Cheng HF, Harris RC, McKanna JA. Cyclooxygenase-2 in rat nephron development. *American Journal of Physiology-Renal Physiology*. 1997;273(6):F994-1002.
- Zidar N, Dolenc-Stražar Z, Jeruc J, Jerše M, Balažic J, Gartner U, Jermol U, Zupanc T, Štajer D. Expression of cyclooxygenase-1 and cyclooxygenase-2 in the normal human heart and in myocardial infarction. *Cardiovascular Pathology*. 2007;16(5):300-4.
- Ziegler-Graham K, MacKenzie EJ, Ephraim PL, Travison TG, Brookmeyer R. Estimating the prevalence of limb loss in the United States: 2005 to 2050. *Archives of Physical Medicine and Rehabilitation*. 2008;89(3):422-9.
- Ziv I, Melamed E, Nardi N, Luria D, Achiron A, Offen D, Barzilai A. Dopamine induces apoptosis-like cell death in cultured chick sympathetic neurons—a possible novel pathogenetic mechanism in Parkinson's disease. *Neuroscience Letters*. 1994;170(1):136-40.
- Zuniga A. Next generation limb development and evolution: old questions, new perspectives. *Development*. 2015;142(22):3810-20.

Webliography

birdgenenames.org [Internet] Arizona : Chicken Gene Nomenclature Consortium (CGNC)

Available from: <http://birdgenenames.org/cgnc/>

lipidmaps.org [Internet] England : William W. Christie updated 2020 June 8 Available

from:<https://lipidmaps.org/resources/lipidweb/index.php?page=lipids/fa-eic/eicprost/index.htm>