BIBLIOGRAPHY

Agata K, Saito Y and Nakajima E. 2007. Unifying principles of regeneration I: Epimorphosis versus Morphallaxis. *Develop. Growth Differ.,* **49**: (2), 73-78.

Akimenko MA, Mari-Beffa M, Becerra J and Geraudie J. 2003. Old questions, new tools, and some answers to the mystery of fin regeneration. *Dev. Dyn.*, **226,** 190-201.

Alibardi L and Toni M. 2005. Wound keratins in the regenerating epidermis of lizard suggest that the wound reaction is similar in the tail and limb. *J. Exp. Zool.*, **303**: (10)**,** 845-860.

Alibardi L and Toni M. 2006. Cytochemical, biochemical and molecular aspects of the process of keratinization in the epidermis of reptilian scales. *Prog. Histoch. Cytoch*., **40**: (2)**,** 73-134.

Alibardi L. 2000. Ultrastructural localization of alpha-keratins in the regenerating epidermis of the lizard *Podarcis muralis* during formation of the shedding layer. *Tiss. Cell*, **32**: (2), 153-162.

Alibardi L. 2009. *Morphological and cellular aspects of tail and limb regeneration in lizards: a model system with implications for tissue regeneration in mammals* (Vol. 207). Springer Science & Business Media.

Alibardi L. 2010. Ultrastructural features of the process of wound healing after tail and limb amputation in lizard. *Acta Zool. (Stockholm)*, **91,** 306-318.

Alibardi L. 2017. Cell proliferation in the amputated limb of lizard leading to scarring is reduced compared to the regenerating tail. *Acta Zoologica,* **98**: (2),170-180.

Allen EHA, Courtney DG, Atkinson SD, Moore JE, Mairs L, Poulsen ET, Schiroli D, Maurizi E, Cole C, Hickerson RP, James J, Murgatroyd H, Smith FJD, MacEwen C, Enghild JJ, Nesbit MA, Leslie Pedrioli DM, McLean WH and Moore CB. 2016. Keratin 12 missense mutation induces the unfolded protein response and apoptosis in Meesmann epithelial corneal dystrophy. *Hum. Mol. Genet*., **25**: (6), 1176-1191.

Alonso L, Palacios JM, Garcia E and Moliner R. 2000. Characterization of Mn and Cu oxides as regenerable sorbents for hot coal gas desulfurization. *Fuel Processing Tech*., **62**: (1)**,** 31.

Alvarado AS and Newmark PA. 1998. The use of planarians to dissect the molecular basis of metazoan regeneration. *Wound repair regen*., **6**: (4), S413-420.

Alvarado AS and Tsonis PA. 2006. Bridging the regeneration gap: genetic insights from diverse animal models. *Nat. Rev. Genet.*, **7,** 873-884.

Arnold EN. 1984. Evolutionary aspects of tail shedding in lizards and their relatives. *J. Nat. Hist.*, **18**: (1), 127-169.

Azar DT, Hahn TW, Jain S, Yeh YC and Stetler-Stevensen WG. 1996. Matrix metalloproteinases are expressed during wound healing after excimer laser keratectomy. *Cornea*, **15:** (1), 18-24.

Baguna J and Slack JMW. 1981. Planarian neoblasts. *Nature*, **290,** 14-15.

Bai S, Thummel R, Godwin AR, Nagase H, Itoh Y, Li Y, Evans R, McDermott J, Seiki M and Sarras MP Jr. 2005. Matrix metalloproteinase expression and function during fin regeneration in zebrafish: Analysis of MT1-MMP, MMP2 and TIMP2. *Matrix Biol*., **24**: (4), 247-260.

Baker AH, Edwards DR and Murphy G. 2002. Metalloproteinase inhibitors: biological actions and therapeutic opportunities. *J. Cell Sci*., **115**: (19), 3719-3727.

Baker EA and Leaper DJ. 2000. Proteinases, their inhibitors, and cytokine profiles in acute wound fluid. *Wound Repair Regen*., **8:** (5), 392-398.

Barrett AJ. 1981. α_2-Macroglobulin. *Methods Enzymol.*, **80**, 737-754.

Bartlett RD and Bartlett PP. 2006. *Geckos – Complete Pet Owners Manual*. Barrons Educational Series, Inc, New York.

Barton PJR and Buckingham ME. 1985. The myosin alkali light chain proteins and their genes. *Biochem. J.*, **231:** (2), 249-261.

Beazley LD, Sheard PW, Tennant M, Starac D and Dunlop SA. 1997. Optic nerve regenerates but does not restore topographic projections in the lizard Ctenophorous ornatus. *J. Comp. Neurol.,* **377**: (1), 105-120.

Becerra IJ, Montes GS, Bexiga SRR and Junqueira LCU. 1983. Structure of the tail fin in teleosts. *Cell Tissue Res.*, **230**: (1), 127-137.

Becerra J, Junqueira LC, Bechara IJ and Montes GS. 1996. Regeneration of fin rays in teleosts: A histochemical, radioautographic, and ultrastructural study. *Arch. Histol. Cytol.*, **59**: (1), 15-35.

Bellairs A and Bryant S. 1985*. Autonomy and Regeneration in Reptiles. In Gans, Carl; Billet, F. Biology of the Reptilia.,* **15,** New York: John Wiley and Sons. pp. 301-410.

Bely AE. 2014. Early Events in Annelid Regeneration: A Cellular Perspective. *Integr. Comp. Biol.,* **54**: (4), 688-699.

Beltrami AP, Urbanek K, Kajstura J, Yan S-M, Finato N, Bussani R, Nadal-Ginard B, Silvestri F, Leri A, Beltrami CA and Anversa P. 2001. Evidence that human cardiac myocytes divide after myocardial infarction. *N. Engl. J. Med.*, **344**: (23), 1750-1757.

Bergmann BO, Bhardwaj RD, Bernard S, Zdunek S, Barnabé-Heider F, Walsh S, Zupicich J, Alkass K, Buchholz BA, Druid H, Jovinge S and Frisén J. 2009. Evidence for Cardiomyocyte Renewal in Humans. *Science,* **324**: (5923), 98-102.

Birbrair A, Zhang T, Wang Z-M, Messi ML, Enikolopov GN, Mintz A and Delbono O. 2013. Role of Pericytes in Skeletal Muscle Regeneration and Fat Accumulation. *Stem Cells Dev*., **22**: (16), 2298-2314.

Birkedal-Hansen H, Moore WG, Bodden MK, Windsor LJ, Birkadel-Hansen B, DeCarlo A and Engler JA.1993. Matrix metalloproteinases: a review. *Crit. Rev. Oral Biol. Med*., **4:** (2), 197-250.

Boilly B, Cavanaugh KP, Thomas D, Hondermarck H, Bryant SV and Bradshaw RA. 1991. Acidic fibroblast growth factor is present in regenerating limb blastemas of axolotls and binds specifically to blastema tissues. *Dev. Biol*., **145**: (2), 302-310.

Bonnans C, Chou J and Werb Z. 2014. Remodelling the extracellular matrix in development and disease. *Nat. rev. mol. cell biol.*, **15:** (12), 786.

Bosch TCG. 1998. Hydra. In P. Ferretti, J. Geraudie, (Eds.), *Cellular and Molecular Mechanisms of Regeneration: from Invertebrates to Humans*. Wiley, Sussex. pp. 111-134.

Bosch TCG. 2007. Why Polyps Regenerate and We Don't: Towards a Cellular and Molecular Framework for Hydra Regeneration. *Dev. Bio.,* **303**: (2), 421-433.

Bose A, The Muy-Teck, Mackenzie Ian C. and Waseem A. 2013. Keratin K15 as a Biomarker of Epidermal Stem Cells *Int. J. Mol. Sci.*, **14**: (10), 19385-19398.

Bradford MM. 1976. A rapid and sensitive method for the quantification of microgram quantities of protein utilizing the principle of protein-dye binding. *Anal. Biochem.*, **72**, 248-254.

Brazaitis P. 1981. Maxillary Regeneration in a Marsh Crocodile, *Crocodylus palustris*. *J. Herpetol*., **15**: (3), 360-362.

Brockes JP and Kumar A. 2002. Plasticity and reprogramming of differentiated cells in amphibian regeneration. *Nat. Rev. Mol. Cell Biol*., **3**: (8), 566-574.

Brockes JP and Kumar A. 2005. Appendage regeneration in adult vertebrates and implications for regenerative medicine. *Science*, **310**: (5756)**,** 1919-1923.

Brockes JP, Anoop K and Cristiana PV. 2001. Regeneration as an Evolutionary Variable. *J. Anat.,* **199**: (Pt 1-2), 3-11.

Brockes JP. 1997. Amphibian limb regeneration: rebuilding a complex structure. *Science*, **276:** (5309), pp.81-87.

Broughton G, Janis JE and Attinger CE. 2006. The basic science of wound healing. *Plast. Reconstr. Surg*., **117**: (7), 12S-34S.

Broussonet, M. 1786. Observations sur la régénérations de quelques parties du corps des poissons. *Hist. d. l'Acad. Roy. Des. Sciences*.

Bryant PJ and Fraser SE. 1988. Wound healing, cell communication, and DNA synthesis during imaginal disc regeneration in Drosophila. *Dev. Bio.*, **127**: (1), 197-208.

Bryant SV and Iten LE. 1976. Supernumerary limbs in amphibians: Experimental production in *Notophthalmus viridescens* and a new interpretation of their formation. *Dev. Biol.*, **50**: (1)**,** 212-234.

Bryant SV, Endo T and Gardiner DM. 2002. vertebrate limb regeneration and the origin of limb stem cells. *Int. J. Dev. Biol.*, **46**: (7), 887-896.

Bryant SV. 1970. Regeneration in amphibians and reptiles. *Endeavour*, **29:** (106), 12-17.

Buch PR, Sarkate P, Uggini GK, Desai I and Suresh B. 2017. Inhibition of Cyclooxygenase-2 Alters Wnt/β-Catenin Signaling in the Regenerating Tail of Lizard *Hemidactylus flaviviridis*. *J. Tissue Eng. Regen. Med.*, **14**: (2), 171-178.

Burguie`re AC, Nord H and Hofsten JV. 2011. Alkali-Like Myosin Light Chain-1 (myl1) Is an Early Marker for Differentiating Fast Muscle Cells in Zebrafish. *Dev. Dyn.*, **240:** (7)**,** 1856-1863.

Burnette WN. 1981. 'Western blotting': electrophoretic transfer of proteins from sodium dodecyl sulfate—polyacrylamide gels to unmodified nitrocellulose and radiographic detection with antibody and radioiodinated protein A. *Anal. Biochem*., **112**: (2), 195-203.

Cai S, Fu X and Sheng Z. 2007. Dedifferentiation: A New Approach in Stem Cell Research. *BioScience*, **57**: (8)**,** 655-662.

Call MK and Tsonis PA. 2005. Vertebrate limb regeneration. *Adv. Biochem. Eng. Biotechnol*., **93,** 67-81.

Calve S, Odelberg SJ and Simon HG. 2010. A transitional extracellular matrix instructs cell behavior during muscle regeneration. *Dev. Biol.*, **344:** (1)**,** 259.

Campbell LJ and Crews CM. 2008. Wound epidermis formation and function in urodele amphibian limb regeneration. *Cell Mol. Life Sci*., **65**: (1), 73-79.

Cannata SM, Bagni C, Bernardini S, Christen B and Filoni S. 2001. Nerve independence of limb regeneration in larval *Xenopus laevis* is correlated to the level of FGF-2 mRNA expression in limb tissues. *Dev. Biol*., **231**: (2), 436-446.

Carinato ME, Walter BE and Henry JJ. 2000. *Xenopus laevis* gelatinase B (Xmmp 9): Development, regeneration, and wound healing. *Dev. Dyn*., **217**: (4), 377.

Carlson BM. 2007. *Principles of regenerative biology*. Academic Press-Elsevier, USA. pp. 25-26.

Carlson MRJ, Bryant SV and Gardiner DM. 1998. expression of *msx-2* during development, regeneration, and wound healing in axolotl limbs. *J. Exp. Zool.*, **282**: (6), 715-723.

Casimir CM, Gates PB, Patient RK and Brockes JP. 1988. Evidence for dedifferentiation and metaplasia in amphibian limb regeneration from inheritance of DNA methylation. *Devel.*, **104**: (4), 657-668.

Chakraborti S, Mandal M, Das S, Mandal A and Chakraborti T. 2003. Regulation of matrix metalloproteinases: an overview. *Mol. Cell. Biochem.*, **253**: (1-2), 269-285.

Chan YC, Chen CW, Chan MH, Chang YC, Chang WM, Chi LH, Yu HM, Lin YF, Tsai DP, Liu RS and Hsiao M. 2016. MMP2-sensing up-conversion nanoparticle for fluorescence biosensing in head and neck cancer cells. *Biosens. Bioelectron.*, **80**, 131-139.

Chen X. 2010. Extracellular matrix provides an optimal niche for the maintenance and propagation of mesenchymal stem cells. *Birth Defects Res*., **90**: (1), 45-54.

Cho A and Reidy MA. 2002. Matrix metalloproteinase-9 is necessary for the regulation of smooth muscle cell replication and migration after arterial injury. *Circ. Res*., **91**: (9)**,** 845-851.

Choe LH and Lee KH. 2000. A comparison of three commercially available isoelctric focusing units for proteome a95nalysis: The multiphor, The IPGphor and the protean IEF cell. *Electrophoresis*, **21**: (5), 993-1000.

Christensen RN, Weinstein M and Tassava RA. 2001. Fibroblast growth factors in regenerating limbs of *Ambystoma*: Cloning and semi-quantitative RT–PCR expression studies. *J. Exp. Zool*., **290**: (5), 529-540.

Clause AR and Capaldi EA. 2006. Caudal autotomy and regeneration in lizards. *J. Exp. Zool*., **305A**: (12), 965-973.

Coleman CM. 2008. Chicken embryo as a model for regenerative medicine. *Birth Defects Res. C Embryo Today: Reviews*., **84**: (3), 245-256.

Cotanche DA, Lee KH, Stone JS and Picard DA. 1994. Hair cell regeneration in the bird cochlea following noise damage or ototoxic drug damage. *Anat. Embryol.*, **189**: (1), 1-18.

da Silva SM, Gates PB, Brockes JP. 2002. The newt ortholog of CD59 is implicated in proximodistal identity during amphibian limb regeneration. *Dev. Cell*, **3**: (4)**,** 547-555.

Daley WP and Yamada KM. 2013. ECM-modulated cellular dynamics as a driving force for tissue morphogenesis. *Curr. Opin. Genet. Dev*., **23**: (4), 408.

Daley WP, Sarah B. Peters SB and Larsen M. 2008. Extracellular matrix dynamics in development and regenerative medicine. *J. Cell Sci.*, **121**: (3)**,** 255-264.

Das S. 2015. Morphological, Molecular, and Hormonal Basis of Limb Regeneration across Pancrustacea. *Integr. Comp. Biol.*, **55**: (5)**,** 869-877.

Davis GE, Bayless KJ, Davis MJ and Meininge GA. 2000. Regulation of tissue injury responses by the exposure of matricryptic sites within extracellular matrix molecules. *Am. J. Pathol.,* **156**: (5), 1489.

De Franceschi N, Hamidi H, Alanko, J, Sahgal P and Ivaska J. 2015. Integrin traffic-the update. *J. Cell Sci.*, **128**: (5), 839-852.

Delorme SL, Lungu IM and Vickaryous MK. 2012. Scar-Free Wound Healing and Regeneration Following Tail Loss in the Leopard Gecko, *Eublepharis macularius. Anat. Rec.,* **295**: (10), 1575-1595*.*

Denis JF, Sader F, Gatien S, Villiard É, Philip A, and Roy S. 2016. Activation of Smad2 but not Smad3 is required to mediate TGF-β signaling during axolotl limb regeneration. *Devel.*, **143:** (19), 3481-3490.

Dunlop SA, Tee LBG, Stirling RV, Taylor AL, Runham PB, Barber AB, Kutchling G, Rodger J, Roberts JD, Harvey AR and Beazley LD. 2004. Failure to restore vision after optic nerve regeneration in reptiles: interspecies variation in response to axotomy. *J. Comp. Naurol.*, **478**: (3)**,** 292-305.

Echeverri K and Tanaka EM. 2002. Ectode-m to mesoderm lineage switching during axolotl tail regeneration. *Science*, **298**: (5600), 1993-1996.

Echeverri K, Clarke JD and Tanaka EM. 2001. *In vivo* imaging indicates muscle fiber dedifferentiation is a major contributor to the regenerating tail blastema. *Dev. Biol*., **236**: (1), 151-164.

Egger B, Gschwentner R and Rieger R. 2007. Free-living flatworms under the knife: past and present. *Dev. Genes Evol*., **217**: (2), 89-104.

Endo T, Bryant SV and Gardiner DM. 2004. A stepwise model system for limb regeneration. *Dev. Biol*., **270**: (1)**,** 135–145.

Evans SE. 2003. At the feet of the dinosaurs: the early history and radiation of lizards. *Biol. Rev.*, **78**: (4)**,** 513-551.

Ferenczy A, Bertrand G and Gelfand MM. 1979*.* Proliferation kinetics of human endometrium during the normal menstrual cycle. *Am. J. Obstet. Gynecol.,* **133**: (8)**,** 859-867*.*

Ferguson MWJ and O'Kane S. 2004. Scar-free healing: from embryonic mechanisms to adult therapeutic intervention. *Phil. Trans. R. Sco. London B*, **359**: (1445), 839-850.

Fernando WA, Leininger E, Simkin J, Li N, Malcom CA, Sathyamoorthi S, Han M and Muneoka K. 2011. Wound healing and blastema formation in regenerating digit tips of adult mice. *Dev. biol.,* **350**: (2), 301-10*.*

Ferretti P and Brockes JP. 1991. Cell origin and identity in limb regeneration and development. *Glia*., **4**: (2), 214-224.

Ferretti P, Concoran JP and Ghosh S. 1993. Expression and regulation of keratins in the wound epithelium and mesenchyme of the regenerating newt limb. *Prog. Clin. Biol. Res.*, **383A,** 261-269.

Ferretti P. 2013. *Regeneration of vertebrate appendages*. eLS. John Wiley & Sons, Ltd, Chichester, England.

Ferretti P. and Géraudie J. 1998. *Cellular and molecular basis of regeneration*. John Wiley & Sons Ltd, Chichester, England.

Fini ME, Cook JR and Mohan R. 1998. Proteolytic mechanisms in corneal ulceration and repair. *Arch. Dermatol. Res*., **290,** 12-23.

Fitch HS. 2003. A comparative study of loss and regeneration of lizard tails. *J. Herpethol*., **37**: (2)**,** 395–399.

Flaumenhaft R and Rifkin DB. 1991. Extracellular matrix regulation of growth factor and protease activity. *Curr. Opin. cell boil.*, **3:** (5), 817-823.

Flores V, Brusco A, Scicolone G and Saavedra JP. 1992. Serotoninergic reinnervation of regenerating tentacular sensory organs in a pulmonate snail, *Cryptomphalus aspersa*. *Int. J. Dev. Neurosci*., **10**: (4), 331-340.

Fox SF and Rostker MA. 1982. Social cost of tail loss in Uta stansburiana. *Science*, **218**: (4573), 692-693.

Fuchs E, Tyner A, Giudice GJ, Marchuk D, Raychaund-Hury A and Rosenberg M. 1987. The human keratin genes and their differential expression. *Curr. Top. in Dev. Biol.*, **22,** 5-34.

Gallagher PJ, Herring BP and Stull JT. 1997. Myosin light chain kinases. *J. Muscle Res. Cell Motil.*, **18**: (1)**,** 1-16.

Ganea E, Trifan M, Laslo AC, Putina G and Cristescu C. 2007. Matrix metalloproteinases: useful and deleterious. *Biochem. Soc. Trans.*, **35**: (pt 4)**,** 689-691.

Gardiner DM and Bryant SV. 1989. Organization of positional information in the axolotl limb. *J. Exp. Zool.,* **251,** 47–55.

Gardiner DM and Bryant SV. 1998. *The tetrapod limb. In: Cellular and molecular basis of regeneration: from invertebrates to humans*, eds Ferretti, P. & Geraudie, J. Wiley, New York, USA, pp. 187-205.

Gardiner DM, Blumberg B, Komine Y and Bryant SV. 1995. Regulation of HoxA expression in developing and regenerating axolotl limbs. *Devel.*, **121**: (6), 1731-1741.

Gardiner DM, Carlson MRJ and Roy S. 1999. Towards a functional analysis of limb regeneration. *Stem Cell Dev. Biol.*, **10**: (4), 385-393.

Gardiner DM, Endo T and Bryant SV. 2002. The molecular basis of amphibian limb regeneration: integrating the old with the new. *Semin. Cell Dev. Biol.,* **13**: (5), 345-352.

Gardner D. 2004. On Geckos. Emirates Natural History Group Newsletter, **218**, Available at: http://www.enhg.org/alain/news/2004/Feb/2004_02.htm#kk.

Gardner D. 2005. Terrestrial reptiles. In: Hellyer, P. and Aspinall, S. (Eds). *The Emirates: A Natural History*. Trident Press Limited, London.

Geraudie J and Ferretti P. 1997. Correlation between RA-induced apoptosis and patterning defects in regenerating fins and limbs. *Int. J. Dev. Biol.*, **41**: (3)**,** 529-532.

Géraudie J and Singer M. 1992. The fish fin regeneration. In: H.W. Sauer (Ed.) *Keys to regeneration*: *Monographs in Developmental Biology*, **23**, pp. 62-72.

Geraudie J, Brulfert A, Monnot MJ and Ferretti P. 1994. Teratogenic and morphogenetic effects of retinoic acid on the regenerating pectoral fin in zebrafish. *J. Exp. Zool*., **268**: (1), 12-22.

Geraudie J, Monnot MJ, Brulfert A and Ferretti P. 1995. Caudal fin regeneration in wild type and long-fin mutant zebrafish is affected by retinoic acid. *Int. J. Dev. Biol.*, **39**: (2)**,** 373-381.

Giani VC, Yamaguchi E, Boyle MJ and Seaver EC. 2011. Somatic and germline expression of piwi during development and regeneration in the marine polychaete annelid *Capitella teleta*. *Evodevo*, **2**: (10).

Gierer A, Berking S, Bode H, David CN, Flick K, Hansmann G, Schaller H and Trenkner E. 1972. Regeneration of hydra from reaggregated cells. *Nature New Biol.,* **239**, 98-101.

Godwin J, Kuraitis D and Rosenthal N. 2014. Extracellular matrix considerations for scar-free repair and regeneration: insights from regenerative diversity among vertebrates. *Int. J. biochem cell biol.*, **56**, 47-55.

Godwin JW and Brockes JP. 2006. Regeneration, tissue injury and the immune response. *J. Anat*., **209**: (4), 423-432.

Godwin JW, Pinto AR and Rosenthal NA. 2013. Macrophages are required for adult salamander limb regeneration. *Proc. Natl. Acad. Sci.*, **110**: (3), 9415-9420.

Gospodarowicz D. 1976. Humoral control of cell proliferation: the role of fibroblast growth factor in regeneration, angiogenesis, wound healing, and neoplastic growth. *Prog. Clin. Biol. Res.*, **9**, 1-19.

Goss R and Stagg M. 1957. The regeneration of fins and fin rays in *Fundulus heteroclitus*. *J. Exp. Zool.*, **136**: (3), 487-507.

Goss RJ. 1987. Why mammals don't regenerate- or do they? *NIPS*, **2**: (3)**,** 112-115.

Govindan J and Iovine MK. 2015. Dynamic remodeling of the extra cellular matrix during zebrafish fin regeneration. article in press. *Gene Expr. Patterns*, **19**: (1), 21-29.

Grandel H and Schulte-Merker S. 1998. The development of the paired fins in the zebrafish (Danio rerio). *MechDev.,* **79**: (1-2), 99-120.

Grillo H, Lapiere C, Dresden M and Gross J. 1968. Collagenolytic activity in regenerating forelimbs of the adult newt (*Triturus viridescens*). *Dev. Biol*., **17:** (5), 571-583.

Grounds MD. 2008. *Complexity of extracellular matrix and skeletal muscle regeneration. In: Schiaffino S, Partridge T, editors. Skeletal Muscle Repair and Regeneration*. Springer; Netherlands, pp. 269-301.

Gulati AK, Zalewski AA and Reddi AH. 1983. An immunofluorescent study of the distribution of fibronectin and laminin during limb regeneration in the adult newt. *Dev. Biol*., **96**: (2), 355.

Halliday T and Adler K. 2002. *The New Encyclopedia of Reptiles and Amphibians*. Oxford University Press, Oxford.

Han M, Yang X, Lee J, Allan CH and Muneoka K. 2008. Development and regeneration of the neonatal digit tip in mice. *Dev. Biol*., **315**: (1)**,** 125-135.

Harty M, Neff AW, King MW and Mescher AL. 2003. Regeneration or scarring: an immunologic perspective. *Dev. Dyn.*, **226**: (2), 268-79.

Hasegawa T, Nakajima T, Ishida T, Kudo A and Kawakami A. 2015. A diffusible signal derived from hematopoietic cells supports the survival and proliferation of regenerative cells during zebrafish fin fold regeneration. *Dev. biol.,* **399**: (1), 80-90.

Hay ED and Fischman DA. 1961. Origin of the blastema in regenerating limbs of newt *Triturus viridescens*. An autoradiographic study using tritiated thymidine to follow cell proliferation and migration. *Dev. Biol*., **3,** 26-59.

Hay ED. 1959. Electron microscopic observations of muscle dedifferentiation in regenerating *Amblystoma* limbs. *Dev. Biol.*, **1,** 555-585.

Herman MP, Sukhova GK, Kisiel W, Foster D, Kehry MR, Libby P and Schonbeck U. 2001. Tissue factor pathway inhibitor-2 is a novel inhibitor of matrix metalloproteinases with implications for atherosclerosis. *J. Clin. Invest*., **107:** (9), 1117-1126.

Hill SD. 1972. Caudal regeneration in the absence of a brain in two species of sedentary polychaetes. *J. Embryol. Exp. Morphol.*, **28**: (3), 667-80.

Hillegass JM, Villano CM, Cooper KR and White LA. 2007. Matrix Metalloproteinase-13 Is Required for Zebra fish (*Danio rerio*) Development and Is a Target for Glucocorticoids. *Toxicol. Sci.*, **100:** (1), 168-179.

Himeno Y, Engelman RW and Good RA. 1992. Influence of calorie restriction on oncogene expression and DNA synthesis during liver regeneration. *Proc. Natl. Acad. Sci. USA*, **89**: (12), 5497-5501.

Hinchliffe JR. 2002. Developmental basis of limb evolution. *Int. J. Dev. Biol.*, **46**: (7)**,** 835-45.

Hojilla CV, Mohammed FF and Khokha R. 2003. Matrix metalloproteinases and their tissue inhibitors direct cell fate during cancer development. *Br. J. Cancer*, **89**: (10), 1817.

Hondermarck H and Boilly B. 1992. Characterization of fibroblast growth factor binding in regenerating limb blastemas of axolotls. *Monogr. Dev. Biol*., **23,** 110-115.

Hopkins PM. 1993. Regeneration of walking legs in the fiddler crab *Uca pugilator*. *Am. Zool*., **33**: (3)**,** 348-356.

Hosker A. 1936. Regeneration of Feathers after Thyroid Feeding. *J. Exp. Biol.*, **13,** 344-351.

Hui SP, Sengupta D, Lee SGP, Sen T, Kundu S, Mathavan S and Ghosh S. 2014. Genome wide expression profiling during spinal cord regeneration identifies comprehensive cellular responses in zebrafish. *PLoS ONE*, **9**: (1)**,** e84212.

Hulboy D, Rudolph L and Matrisian L. 1997. Matrix metalloproteinases as mediators of reproductive function. *Mol. Hum. Reprod.*, **3:** (1)**,** 27-45.

Hutchins ED, Markov GJ, Eckalbar WL, George RM, King JM, Tokuyama MA, Geiger LA, Emmert N, Ammar MJ, Allen AN, Siniard AL, Corneveaux JJ, Fisher RE, Wade J, DeNardo DF, Rawls JA, Huentelman MJ, Wilson-Rawls J and Kusumi K. 2014. Transcriptomic Analysis of Tail Regeneration in the Lizard *Anolis carolinensis* Reveals Activation of Conserved Vertebrate Developmental and Repair Mechanisms. *PlosOne*, **9**: (8), e105004.

Hynes RO. 2009. The extracellular matrix: not just pretty fibrils. *Science*, **326**: (5957), 1216-1219.

Hynes RO. 2014. Stretching the boundaries of extracellular matrix research. *Nat. Rev. Mol. Cell Biol.*, **15**: (12), 761.

Imboden M, Goblet C, Korn H and Vriz S. 1997. Cytokeratin 8 is a suitable epidermal marker during zebrafish development. *C. R. Acad. Sci.*, **320:** (9)**,** 689-700.

Iovine MK. 2007. Conserved mechanisms regulate outgrowth in zebrafish fins. *Nat. Chem. Biol.*, **10**: (3), 613-618.

Irvine AD, Corden LD, Swensson O, Swensson B, Moore JE, Frazer DG, Smith FJ, Knowlton RG, Christophers E, Rochels R, Uitto J and McLean WH. 1997.

Mutations in cornea-specific keratin K3 or K12 genes cause Meesmann's corneal dystrophy. *Nat. Genet.*, **16**: (2), 184-187.

Irwin CR and Ferguson MWJ. 1986. Fracture repair of reptilian dermal bones: can reptiles form secondary cartilage? *J. Anat.,* **146,** 53-64.

Ishida-Yamamoto A, Tanaka H, Nakane H, Takahashi H and Iizuka H. 1998. Inherited disorders of epidermal keratinization. *J. Dermatol. Sci*., **18**: (3), 139-154.

Iten LE and Bryant SV. 1973. Forelimb regeneration from different levels of amputation in newt, *Notophthalmus viridescens*: Length, rate, and stages. *Roux. Arch. Dev. Biol*., **173**: (4)**,** 263-282.

Ito A, Mukaiyama A, Itoh Y, Nagase H, Thogersen IB, Enghild JJ, Sasaguri Y, Mori Y. 1996. Degradation of interleukin 1β by matrix metalloproteinases. *Biol. Chem.*, **271:** (25), 14657-14660.

Itoh T, Ikeda T, Gomi H, Nakao S, Suzuki T and Itohara S. 1997. Unaltered secretion of beta-amyloid precursor protein in gelatinase A (matrix metalloproteinase 2)-deficient mice. *J. Biol. Chem.*, **272**: (36)**,** 22389-22392.

Jaźwińska A, Badakov R, Keating MT. 2007. Activin-βA Signaling Is Required for Zebrafish Fin Regeneration. *Curr. Biol.*, **17:** (16), 1390-1395.

Jhamb D, Rao N, Milner DJ, Song F, Cameron JA, Stocum DL, Palakal MJ. 2011. Network based transcription factor analysis of regenerating axolotl limbs. *BMC Bioinformatics*, **12**, 80.

Johnson S and Weston J. 1995. Temperature-sensitive mutations that cause stage-specific defects in zebrafish fin regeneration. *Genetics*, **141**: (4), 1583-1595.

Ju BG and Kim WS. 1998. Upregulation of cathepsin D expression in the dedifferentiating salamander limb regenerates and enhancement of its expression by retinoic acid. *Wound Repair Regen.*, **6**: (4)**,** 349-357.

Kallioinen M, Koivakangas V, Jarvinen M and Oikarinen A. 1995. Expression of cytokeratins in regenerating human epidermis. *Br. J. Dermatol.,* **133**: (6)**,** 830-835.

Kao WW, Liu CY, Converse RL, Shiraishi A, Kao CW, Ishizaki M, Doetschman T and Duffy J. 1996. Keratin 12-deficient mice have fragile corneal epithelia. *Invest. Ophthalmol. Vis. Sci.*, **37**: (13), 2572-84.

Kawakami Y, Rodriguez Esteban C, Raya M, Kawakami H, Marti M, Dubova I and Izpisua Belmonte JC. 2006. Wnt/beta-catenin signaling regulates vertebrate limb regeneration. *Genes Dev.,* **20**: (23), 3232-3237.

Kawasumi A, Sagawa N, Hayashi S, Yokoyama H and Tamura K. 2013. *Wound healing in mammals and amphibians: toward limb regeneration in mammals. In New Perspectives in Regeneration*. Springer Berlin Heidelberg, USA,**367**, pp. 33-49.

Kelly R and Buckingham M. 1997. Manipulating myosin light chain 2 isoforms in vivo: a transgenic approach to understanding contractile protein diversity. *Cir. Res.*, **80**: (5), 751-753.

Kelly RG and Buckingham ME. 2000. Modular regulation of the *mlc1f/3f* gene and striated muscle diversity. *Microsc Res. Tech.*, **50:** (6), 510-521.

Kherif S, Lafuma C, Dehaupas M, Lachkar S, Fournier JG, Verdiere-Sahuque M, Fardeau M and Alameddine HS. 1999. Expression of matrix metalloproteinases 2 and 9 in regenerating skeletal muscle: a study in experimentally injured and mdx muscles. *Dev. Biol*., **205:** (1), 158-170.

Kim DH, Lu N, Rui M, Kim YS, Kim RH, Wang S, Wu J, Won SM, Tao H, Islam A, Yu KJ, Kim TI, Chowdhury R, Ying M, Xu L, Li M, Chung HJ, Keum H, McCormick M, Liu P, Zhang YW, Omenetto FG, Huang Y, Coleman T, Rogers JA. 2011. Epidermal Electronics. *Science*, **333**: (6064), 838-843.

Kim S, Wong P and Coulombe PA. 2006. A keratin cytoskeletal protein regulates protein synthesis and epithelial cell growth. *Nature,* **441**: (7091), 362-375.

Kim TH, Mars WM, Stolz DB and Michalopoulos GK. 2000. Expression and activation of pro-MMP-2 and pro-MMP-9 during rat liver regeneration. *Hepatology*, **31**: (1), 75-82.

King MW, Neff AW and Mescher AL. 2009. Proteomics analysis of regenerating amphibian limbs: changes during the onset of regeneration. *Int. J. Dev. Biol.*, **53**: (7)**,** 955-969.

King MW, Neff AW, Mescher AL. 2012. The developing Xenopus limb as a model for studies on the balance between inflammation and regeneration. *Anat. Rec.,* **295**: (10),1552-1561.

Kintner CR and Brockes JP. 1984. Monoclonal antibodies identify blastemal cells derived from dedifferentiating limb regeneration. *Nature*, **308**: (5954), 67-69.

Klose J. 1975. Protein mapping by combined isoelectric focusing and electrophoresis of mouse tissues. A novel approach to testing for induced point mutations in mammals. *Humangenetik*, **26**: (3), 231-43.

Knapp D, Schulz H, Rascon CA, Volkmer M, Scholz J, Nacu E, Le M, Novozhilov S, Tazaki A, Protze S, Jacob T, Hubner N, Habermann B and Tanaka E. 2013. Comparative transcriptional profiling of the axolotl limb identifies a tripartite regeneration-specific gene program. *PLoS ONE*, **8**: (5)**,** e61352.

Kobayashi T, Kim H, Liu X, Sugiura H, Kohyama T, Fang Q, Wen FQ, Abe S, Wang X, Atkinson JJ, Shipley JM, Senior RM and Rennard SI. 2014. "Matrix metalloproteinase-9 activates TGF-ss and stimulates fibroblast contraction of collagen gels". *Am. J. Physiol Lung Cell Mol. Physiol.,* **306**: (11), L1006.

Kragl M, Knapp D, Nacu E, Khattak S, Maden M, Epperlein HH and Tanaka E. 2009. Cells keep a memory of their tissue origin during axolotl limb regeneration. *Nature*, **460**: (7251), 60-65.

Kresie L. 2001. Artificial blood: an update on current red cell and platelet substitutes. *Baylor Health Care*, **14**: (2), 158-161.

Krushna PB, Akimenko MA and Ekker M. 2006. Independent expansion of the keratin gene family in teleostean fish and mammals: An insight from phylogenetic analysis and radiation hybrid mapping of keratin genes in zebrafish. *Gene*, **368**: (1), 37-45.

Kumar A and Pilo B. 1994. Influence of catecholamine and acetylcholine neurotransmittors on tail regeneration in the gekkonid lizard, *Hemidactylus flaviviridis. Indian J. Exp. Biol*., **32,** 767-771.

Laemmli UK. 1970. Cleavage of Structural Proteins during the Assembly of the Head of Bacteriophage T4. *Nature*, **227**, 680-685.

Laforest L, Brown CW, Poleo G, Géraudie J, Tada M, Ekker M and Akimenko M-A. 1998. Involvement of the sonic hedgehog, patched 1 and bmp2 genes in patterning of the zebrafish dermal fin rays. *Devel.*, **125**: (21), 4175-4184.

Laulan NB and St-Pierre Y. 2015. Bone morphogenetic protein 4 (BMP-4) and epidermal growth factor (EGF) inhibit metalloproteinase-9 (MMP-9) expression in cancer cells. *Oncoscience*, **2**: (3), 309-316.

Lee Y, De Val S, Kagermeier-Schenk B, Wills AA, Weidinger G and Poss KD. 2009. Maintenance of blastemal proliferation by functionally diverse epidermis in regenerating zebrafish fins. *Dev. Biol.*, **331**: (2), 270-280.

Lee Y, Grill S, Sanchez A, Murphy-Ryan M and Poss KD. 2005. FGF signaling instructs position-dependent growth rate during zebrafish fin regeneration. *Devel.*, **132**: (23), 5173-5183.

Lemaître V and D'Armiento J. 2006. Matrix metalloproteinases in development and disease. *Birth Defects Res C. Embryo Today*, **78:** (1),1-10.

Li C, Pearson A and McMahon C. 2013. Morphogenetic Mechanisms in the Cyclic Regeneration of Hair Follicles and Deer Antlers from Stem Cells. *Biomed. Resources International,* Article ID 643601, 21 pages.

Lien CL, Schebesta M, Makino S, Weber GJ and Keating MT. 2006. Gene expression analysis of zebrafish heart regeneration. *PLoS Biol*., **4:** (8), e260.

Livak KJ and Schmittgen TD. 2001. Analysis of Relative Gene Expression Data Using Real Time Quantitative PCR and the $2^{-\Delta\Delta CT}$ Method. *Methods*, **25**: (4), 402-408.

Lo DC, Allen F and Brockes JP. 1993. Reversal of muscle differentiation during urodele limb regeneration. *PNAS,* **90**: (15), 7230-7234.

Looso M, Preussner J, Sousounis K, Bruckskotten M, Michel CS, Lignelli E, Reinhardt R, Höffner S, Krüger M, Tsonis PA, Borchardt T and Braun T. 2013. A *de novo* assembly of the newt transcriptome combined with proteomic validation identifies new protein families expressed during tissue regeneration. *Genome Biol.*, **14**: (2)**,** R16.

Lu P, Takai K, Weaver VM and Werb Z. 2011. Extracellular Matrix Degradation and Remodeling in Development and Disease. *Cold Spring Harb. Perspect. Bio*., **3**: (12), a005058.

Ludolph DC, Cameron JA and Stocum DL. 1990. The effect of retinoic acid on positional memory in the dorsoventral axis of regenerating axolotl limbs. *Dev. Biol.*, **140**: (1), 41-52.

Maden M. 1978. Neurotrophic control of the cell cycle during amphibian limb regeneration. *J. Embryol. Exp. Morphol*., **48**: (1), 169-175.

Maderson PFA. 1971. The regeneration of caudal epidermal specialisations in *Lygodactylus picturatus keniensis* (Gekkonidae, Lacertilia). *J. Morphol.*, **134,** 467-478.

Maderson PFA, Baranowitz S, Roth SI. 1978. A histological study of the long term response to trauma of squamate integument. *J. Morphol*., **157,** 121-136.

Maginnis TL. 2006. The cost of autotomy and regeneration in animals: a review and framework for future research. *Behav. Ecol.*, **17**: (5)**,** 857-872.

Maki N, Suetsugu-Maki R, Tarui H, Agata K, Del Rio-Tsonis K, Tsonis PA. 2009. Expression of stem cell pluripotency factors during regeneration in newts. *Dev. Dyn.*, **238**: (6)**,** 1613-1626.

Maki N, Martinson J, Nishimura O, Tarui H, Meller J, Tsonis PA, Agata K. 2010. Expression profiles during dedifferentiation in newt lens regeneration revealed by expressed sequence tags. *Mol. Vision.*, **16,** 72-78.

Mari-Beffa M, Palmqvist P, Marin-Giron F, Montes GS and Becerra J. 1999. Morphometric study of the regeneration of individual rays in teleost tail fins. *J. Anat*., **195**: (3), 393-405.

Martorana ML, Tawk M, Lapointe T, Barre N, Imboden M, Joulie C, Géraudie J and Vriz S. 2001. Zebrafish keratin 8 is expressed at high levels in the epidermis of regenerating caudal fin. *Int. J. Dev. Biol.,* **45**: (2)**,** 449-452.

Masaki H and Ide H. 2007. Regenerative potency of mouse limbs. *Dev. growth differ.*, **49**: (2), 89-98.

Mathew LK, Andreasen EA and Tanguay RL. 2006. Aryl hydrocarbon receptor activation inhibits regenerative growth. *Mol. Pharmacol*., **69:** (1), 257-265.

Matrisian LM. 1990. Metalloproteinases and their inhibitors in matrix remodeling. *Trends in Genetics*, **6**, 121-125.

McCusker C, Bryant SV and Gardiner DM. 2015. The axolotl limb blastema: cellular and molecular mechanisms driving blastema formation and limb regeneration in tetrapods**.** *Regeneration*, **2**: (2), 1-18.

McGown KM, Tong X, Colucci-Guyon E, Langa F, Babinet C and Coulembe PA. 2002. Keratin 17 null mice exhibit age- and strain-dependent alopecia. *Genes Dev*., **16:** (11), 1412-1422.

McKim LH. 1932. Regeneration of the Distal Phalanx. *The Canadian Medical Association Journal*., **26,** 549–50.

McLean KE and Vickaryous M. 2011. A novel amniote model of epimorphic regeneration: the leopard gecko, *Eublepharis macularius. BMC Dev. Bio.*, **11,** 50.

McQuibban GA, Butler GS, Gong JH, Bendall L, Power C, Clark-Lewis I and Overall CM. 2001. Matrix metalloproteinase activity inactivates the CXC chemokine stromal cell-derived factor-1. *J. Biol. Chem.*, **276:** (47), 43503-43508.

Mercer SE, Odelberg SJ and Simon HG. 2013. A dynamic spatiotemporal extracellular matrix facilitates epicardial-mediated vertebrate heart regeneration. *Dev. Biol.*, **382**: (2)**,** 457.

Mescher AL and Munaim SE. 1984. ‘Trophic’ effects of transferrin on amphibian limb regeneration blastemas. *J. Exp. Zool*., **230**: (3), 485-490.

Mescher AL and Neff AW. 2005. Regenerative capacity and the developing immune system. *Adv. Biochem. Eng. Biotechnol.*, **93**, 39-66.

Mescher AL and Tassava RA. 1975. Denervation effects on DNA replication and mitosis during the initiation of limb regeneration in adult newts. *Dev. Biol.*, **44**: (1), 187-197.

Mescher AL. 1996. The cellular basis of limb regeneration in urodeles. *Int. J. Dev. Biol*., **40**: (4), 785-795.

Mescher AL, White GW and Brokaw JJ. 2000. Apoptosis in regenerating and denervated, non-regenerating urodele forelimbs. *wound Repair Regen.*, **8**: (2), 110-116.

Metcalfe AD and Ferguson MW. 2005. Harnessing wound healing and regeneration for tissue engineering. *Biochem. Soc. Trans*., **33:** (2), 413-417.

Michalopoulos GK and DeFrances MC. 1997. Liver regeneration. *Science*, **276**: (5309), 60-66.

Miyazaki K, Uchiyama K, Yutaka I. and Katsutoshi Y. 1996. Cloning and characterization of cDNAs for matrix metalloproteinases of regenerating newt limbs. *Proc. Natl. Acad. Sci.*, **93**: (13), 6819.

Montes GS, Becerra J, Toledo OMS, Gordilho MA and Junqueira LCU. 1982. Fine structure and histochemistry of the tail fin ray in teleosts. *Histochemistry*, **75**: (3), 363-376.

Montgomery JR and Coward SJ. 1974. On the minimal size of a planarian capable of regeneration. *Trans. Am. Mic. Sci*., **93**, 386-391.

Morasso MI and Tomic-Canic M. 2005. Epidermal stem cells: the cradle of epidermal determination, differentiation and wound healing. *Biol. Cell*., **97**: (3), 173-183.

Morgan TH. 1901. *Regeneration*. New York: Macmillan.

Morgan TH. 1902. Further experiments on the regeneration of the tail fins of fishes. *Arch. Entw. Mech. Org.*, **14,** 539-561.

Morgan TH. 1906. The physiology of regeneration. *J. Exp. Zool.*, **4**, 457-500.

Moriyasu M, Makanae A and Satoh A. 2012. Spatiotemporal regulation of keratin 5 and 17 in the axolotl limb. *Dev. Dyn*., **241**: (10), 1616-24.

Morrison JI, Loof S, He P and Simon A. 2006. Salamander limb regeneration involves the activation of a multipotent skeletal muscle satellite cell population. *J. Cell Biol*., **172**: (3), 433-440.

Mosig RA, Dowling O, DiFeo A, Ramirez MCM, Parker IC, Abe E, Diouri J, Aqeel AA, Wylie JD, blander SA, Madri J, Bianco P, Apte SS, Zaidi M, Doty SB, Majeska RJ, Schaffler MB and Martignetti JA. 2007. Loss of MMP-2 disrupts skeletal and craniofacial development and results in decreased bone mineralization, joint erosion and defects in osteoblast and osteoclast growth. *Hum. Mol. Gen.*, **16**: (9), 1113.

Mott J, Thomas C, Rosenbach M, Takahara K, Greenspan D and Banda M. 2000. Post-translational proteolytic processing of procollagen C-terminal proteinase enhancer releases a metalloproteinase inhibitor. *J. Biol. Chem.*, **275**: (2)**,** 1384-1390.

Mullen LM, Bryant SV, Torok MA, Blumberg B and Gardiner D. 1996. Nerve dependency of regeneration: the role of Distal-less and FGF signalling in amphibian limb regeneration. *Devel.,* **122**: (11), 3487-3497.

Munaim SI and Mescher AL. 1986. Transferrin and the trophic effect of neural tissue on amphibian limb regeneration blastemas. *Dev. Biol.*, **116**: (1), 138-142.

Muneoka K and Bryant SV. 1984. Cellular contribution to supernumerary limbs in the axolotl, *Ambystoma mexicanum. Dev. Biol.*, **105**: (1), 166-178.

Muneoka K, Allan CH, Yang X, Lee J and Han M. 2008. Mammalian regeneration and regenerative medicine. *Birth Defects Res. C Embryo Today: Reviews,* **84**: (4), 265-280.

Nachtrab G, Czerwinski M and Poss KD. 2011. Sexually dimorphic fin regeneration in zebrafish controlled by androgen/GSK3 signaling. *Curr. Biol.,* **21**: (22)**,** 1912-1917.

Nacu E, Glausch M, Le HQ, Damanik FFR, Schuez M, Knapp D, Khattak S, Richter T and Tanaka EM. 2013. Connective tissue cells, but not muscle cells, are involved in establishing the proximo-distal outcome of limb regeneration in the axolotl. *Devel*., **140**: (3)**,** 513-518.

Nagase H. 1997. Activation mechanisms of Matrix Metalloproteinases. *Biol Chem.*, **378**: (3-4)**,** 151-160.

Nagase H and Woessner JF. 1999. Matrix metalloproteinases. *J. Biol. Chem.*, **274**: (31)**,** 21491.

Nagase H, Visse R and Murphy G. 2006. Structure and function of matrix metalloproteinases and TIMPs. *Cardiovasc. Res.*, **69**: (3), 562-573.

Nakamura K, Maki N, Trinh A, Trask HW, Gui J, Tomlinson CR and Tsonis PA. 2010. miRNAs in Newt Lens Regeneration: Specific Control of Proliferation and Evidence for miRNA Networking. *PLoS ONE,* **5**: (8), e12058. doi:10.1371/journal.pone.0012058.

Namenwirth M. 1974. The inheritance of cell differentiation during limb regeneration in the axolotl. *Dev. Biol*., **41**: (1), 42-56.

Nanhoe LMR and Ouboter PE. 1987. The distribution of reptiles and amphibians in the Annapurna-Dhaulagiri region (Nepal). *Zool. Verhandel.*, **240**, 3-100.

Nguyen M, Singhal P, Piet JW, Shefelbine SJ, Maden M, Voss SR and Monaghan JR. 2017. Retinoic acid receptor regulation of epimorphic and homeostatic regeneration in the axolotl. *Devel.*, **144:** (4), 601-611.

Nisani Z, Dunbar SG and Hayes WK. 2007. Cost of venom regeneration in *Parabuthus transvaalicus* (Arachnida: Buthidae). *Comp.Biochem. Physiol.,* **147**: (2), 509-513.

Noda K. 1971. Reconstitution of dissociated cells of hydra. *Zoology*, **80**, 99-101.

Nye HLD, Cameron JA, Chernoff EAG and Stocum DL. 2003. Regeneration of the urodele limb: A review. *Dev. Dyn*., **226**: (2), 280-294.

O'Farrell PH. 1975. High resolution two-dimensional electrophoresis of proteins*. J. Biol. Chem.*, **250**: (10), 4007-4021.

Oh J, Takahashi R, Kondo S, Mizoguchi A, Adachi E, Sasahara RM, Nishimura S, Imamura Y, Kitayama H, Alexander DB, Ide C, Horan TP, Arakawa T, Yoshida H, Nishikawa S, Itoh Y, Seiki M, Itohara S, Takahashi C and Noda M. 2001. The membrane-anchored MMP inhibitor RECK is a key regulator of extracellular matrix integrity and angiogenesis. *Cell*, **107**: (6)**,** 789-800.

Okita M, Yoshimura T, Nakano J, Motomura M and Eguchi K. 2004. Effects of reduced joint mobility on sarcomere length, collagen fibril arrangement in the endomysium, and hyaluronan in rat soleus muscle. *J. Muscle Res. Cell Motil.*, **25**: (2), 159-166.

Padhi BK, Joly L, Tellis P, Smith A, Nanjappa P, Chevrette M, Ekker M, Akimenko MA. 2004. Screen for genes differentially expressed during regeneration of the zebrafish caudal fin. *Dev. dyn.*, **231**: (3), 527-541.

Page-McCaw A, Ewald AJ and Werb Z. 2007. Matrix metalloproteinases and the regulation of tissue remodelling. *Nat. Rev. Mol. Cell Biol.*, **8:** (3), 221-233.

Park IS and Kim WS. 1999. Modulation of gelatinase activity correlates with the dedifferentiation profile of regenerating salamander limbs. *Mol. Cells*, **9**: (2)**,** 119–126.

Park SK, Ju BG and Kim WS. 2009. *Msx-1* acts as a regulator for blastema growth. *Genes Genom.*, **31**: (6), 457-466.

Patel GK, Wilson CH, Harding KG, Finlay AY and Bowden PE. 2006. Numerous keratinocyte subtypes involved in wound re-epithelialization. *J. Invest. Dermatol*., **126**: (2), 497-502.

Patruno M, Thorndyke MC, Candia-Carnevali MD, Bonasoro F and Beesley PW. 2001. Growth factors, heat-shock proteins and regeneration in echinoderms. *J. Exp. Biol*., **204:** (5), 843-848.

Pechter PM, Gil J, Valdes J, Tomic-Canic M, Pastar I, Stojadinovic O, Kirsner RS and Davis SC. 2012. Keratin dressings speed epithelialization of deep partial-thickness wounds. *Wound Repair Regen.*, **20**: (2), 236-242.

Perez R, Kirsner R, Gil J, Valdes J and Davis S. 2009. Evaluation of the effects of two keratin formulations on wound healing and keratin gene expression in a porcine model. Presented at: Symposium on Advanced Wound Care Conference, Dallas, TX.

Periasamy M, StrehlerS EE, Garfinkel LI, Gubits RM, Ruiz-Opazo N and Nadal-GinardQ B. 1984. Fast Skeletal Muscle Myosin Light Chains 1 and 3 Are Produced from a Single Gene by a Combined Process of Differential RNA Transcription and Splicing. *J. biol. Chem.***, 259**: (21), 10, pp. 13595-13604.

Philips SJ, Kumar RJ and Menon KV. 2005. Morphological study of rib regeneration following costectomy in adolescent idiopathic scoliosis. *Eur. Spine J.*, **14**: (8), 772-776.

Pillai A, Saradamba A, Tailor N, Desai I and Suresh B. 2011. Caudal fin regeneration is regulated by COX-2 induced PGE2 in teleost fish, *Poecilia latipinna. J. Cell Tissue Res.,* **11**: (2), 2795-2801.

Pillai A. 2012. Role of fibroblast growth factor 2 (FGF2) in the initiation and progression of tail regeneration in northern house gecko *Hemidactylus flaviviridis*. Ph. D thesis submitted to The M. S. University of Baroda, Vadodara, India.

Pillai A, Desai I and Suresh B. 2013. Pharmacological inhibition of FGFR1 signaling attenuates the progression of tail regeneration in the northern house gecko *Hemidactylus flaviviridis*. *Int. J. LifeSc. Bt & Pharm. Res.,* **2**: (4), 263-278.

Pilo B. and Suresh B. 1994. Effect of epidermal growth factor on progress of tail regeneration in the gekkonid lizard *Hemidactylus flaviviridis. J. Anim. Morphol. Physiol*., **41,** 61-66.

Pilo B and Kumar A. 1995. Effect Of chemical adrenalectomy and corticosterone administration on tail regeneration in the gekknoid lizard, *Hemidactylus flavivivridis. Ind. J. Exp. Biol***., 33,** 917-920.

Piovesana S, Capriotti AL, Caruso G, Cavaliere C, La Barbera G, Chiozzi RZ and Laganà A. 2016. Labeling and label free shotgun proteomics approaches to characterize muscle tissue from farmed and wild gilthead sea bream (*Sparus aurata*). *J. Chromatogr. A*. **1428**, 193-201.

Poss KD, Shen J and Keating MT.2000a. Induction of lef1 during zebrafish fin regeneration. *Dev. Dyn*., **219**: (2), 282.

Poss KD, Shen J, Nechiporuk A, McMahon G, Thisse B, Thisse C, Keating MT. 2000b. Roles for Fgf signaling during zebrafish fin regeneration. *Dev. Biol*., **222**: (2), 347.

Poss KD, Wilson LG and Keating MT. 2002. Heart regeneration in zebrafish. *Science,* **298**: (5601), 2188-2190.

Poss KD, Keating MT and Nechiporuk A. 2003. Tales of regeneration in zebrafish. *Dev. Dyn.*, **226**: (2), 202-210.

Price J and Allen S. 2004. Exploring the Mechanisms Regulating Regeneration of Deer Antlers. *Phil. Trans. R. Soc. B. Biol. Sci*., **359**: (1445), 809-822.

Quint E, Smith A, Avaron F, Laforest L, Miles J, Gaffield W and Akimenko MA. 2002. Bone patterning is altered in the regenerating zebrafish caudal fin after ectopic expression of sonic hedgehog and bmp2b or exposure to cyclopamine. *Proc. Natl. Acad. Sci*, **99**: (13), 8713-8718.

Rajaram S, Murawala H, Buch P, Patel S and Balakrishnan S. 2016. Inhibition of BMP signaling reduces MMP-2 and MMP-9 expression and obstructs wound healing in regenerating fin of teleost fish Poecilia latipinna. *Fish Physiol. Biochem.*, **42**: (2), 787-94.

Rajaram S. 2016. Investigating the Role of BMP signalling in Epimorphic Regeneration. Thesis submitted to M.S. University of Baroda, Vadodara.

Rao N, Jhamb D, Milner DJ, Li B, Song F, Wang M, Voss SR, Palakal M, King MW, Saranjami B, Nye HLD, Cameron JA and Stocum DL. 2009. Proteomic analysis of blastema formation in regenerating axolotl limbs. *BMC Biol.*, **7:** (83), 1-25.

Rao N, Song F, Jhamb D, Wang M, Milner DJ, Price NM, Belecky-Adams TL, Palakal MJ, Cameron JA, Li B, Chen X and Stocum DL. 2014. Proteomic analysis of fibroblastema formation in regenerating hind limbs of *Xenopus laevis* froglets and comparison to axolotl. *BMC Dev. Biol.,* **14,** 32.

Reichman OJ. 1984. Evolution of regeneration capabilities. *Amer Natur.*, **123**: (6)**,** 752-763.

Reilly GC and Engler AJ. 2010. Intrinsic extracellular matrix properties regulate stem cell differentiation. *J. Biomechan*., **43**: (1), 55-62.

Renart J, Reiser J and Stark GR. 1979. Transfer of proteins from gels to diazobenzyloxymethyl paper and detection with antisera: a method for studying antibody specificity and antigen structure. *Proc. Natl. Acad. Sci. USA*., **76**: (7), 3116-20.

Reyer RW. 1954. Regeneration in the lens in the amphibian eye. *Q. Rev. Biol*., **29**: (1), 1-46.

Riddle RD, Johnson RL, Laufer E and Tabin C. 1993. Sonic hedgehog mediates the polarizing activity of the ZPA. *Cell*, **75**: (7)**,** 1401-1416.

Rivera R, Ortiz JR, Ortiz E. 1981. N-acetyl-glucosaminidase activity during limb regeneration in the adult newt. *Differentiation*, **19**: (1-3)**,** 121-123.

Robert B, Daubas P, Akimenko MA, Cohen A, Garner I, Guenet JL and Buckingham M. 1984. A single locus in the mouse encodes both myosin light chains 1 and 3, a second locus corresponds to a related pseudogene. *Cell*, **39**: (1), 129-40.

Robins R. 2003. Biological profile of the sailfin molly. Florida Museum of Natural History website.

Roop D. 1995. Defects in the barrier. *Science,* **267**: (5197), 474-475.

Roy S, Gardiner DM and Bryant V. 2000. Vaccinia as a tool for functional analysis in regenerating Limbs: Ectopic expression of *shh. Dev. Biol*., **218**, 199-205.

San Miguel-Ruiz JE, Maldonado-Soto AR, and García-Arrarás JE. 2009. Regeneration of the radial nerve cord in the sea cucumber *Holothuria glaberrima*. *BMC dev. biol*., **9**: (3), 1-19.

Sandoval-Guzmán T, Wang H, Khattak S, Schuez M, Roensch K, Nacu E, Tazaki A, Joven A, Tanaka EM and Simon A. 2014. Fundamental differences in dedifferentiation and stem cell recruitment during skeletal muscle regeneration in two salamander species. *Cell Stem Cell*, **14:** (2)**,** 174-187.

Santamaria JA and Becerra J. 1991. Tail fin regeneration in teleosts: cell-extracellular matrix interaction in blastemal differentiation. *J. Anat.,* **176,** 9-21.

Santamaria JA, Mari-Beffa M and Becerra J. 1992. Interactions of the lepidotrichial matrix components during tail fin regeneration in teleosts. *Differentiation*, **49**: (3), 143-150.

Santamaría JA, Marí-Beffa M, Santos-Ruiz L and Becerra J. 1996. Incorporation of bromodeoxyuridine in regenerating fin tissue of the goldfish *Carassius auratus*. *J. Exp. Zool*., **275**: (4), 300-307.

Santosh N, Windsor LJ, Mahmoudi BS, Li B, Zhang W, Chernoff EA, Rao N, Stocum DL and Song F. 2011. Matrix metalloproteinase expression during blastema formation in regeneration-competent versus regeneration-deficient amphibian limbs. *Dev. Dyn*., **240:** (5), 1127-1141.

Santos-Ruiz L, Santamaria JA, Ruiz-Sanchez J and Becerra J. 2002. Cell proliferation during blastema formation in the regenerating teleost fin. *Dev. Dyn.*, **223**: (2), 262-272.

Saradamba A. 2012. Cellular and molecular mechanisms of epimorphic regeneration in teleost fish: role of fibroblast growth factor 2. Ph. D thesis submitted to The M. S. University of Baroda, Vadodara, India.

Saradamba A, Buch PR, Murawala HA and Balakrishnan S. 2013. SU5402, a pharmacological inhibitor of fibroblast growth factor receptor (FGFR), effectively hampers the initiation and progression of fin regeneration in teleost fish. *Eur. J. Zool. Res.,* **2**: (4), 1-9.

Saunders JW, Gasseling MT and Errick JE. 1976. Inductive activity and enduring cellular constitution of a supernumerary apical ectodermal ridge grafted to the limb bud of the chick embryo. *Dev. Biol*., **50**: (1), 16-25.

Saunders JW. 1998. The proximo-distal sequence of origin of the parts of the chick wing and the role of the ectoderm. *J. Exp. Zool*., **282**: (6), 628-668.

Schefe JH, Lehmann KE, Buschmann IR, Unger T and Funke-Kaiser H. 2006. Quantitative real-time RT-PCR data analysis: current concepts and the novel "gene expression's CT difference" formula". *J Mol. Med*., **84**: (11), 901-910.

Schmidt AJ. 1966. *The molecular basis of regeneration: enzymes*. In: Kirch ER, Marberger JP, Reynolds SRM, Winzler RJ, editors. Illinois Monographs in Medical Sciences. Urbana, IL: University of Illinois Press, **6**: (4).

Schmidt AJ. 1968. *Cellular biology of vertebrate regeneration and repair*. Chicago: The University of Chicago Press.

Schultz GS and Wysocki A. 2009. Interactions between extracellular matrix and growth factors in wound healing. *Wound Rep. Regen*., **17:** (2), 153-162.

Schwartz JD, Monea S, Marcus SG, Patel S, Eng K, Galloway AC, Mignatti P and Shamamian P. 1998. Soluble factors released from neutrophils activates endothelial cell matrix metalloproteinase- 2. *J. Surg. Res*., **76:** (1), 79-85.

Seifert AW, Kiama SG, Seifert MG, Goheen JR, Palmer TM and Maden M. 2012. Skin shedding and tissue regeneration in African spiny mice (Acomys). *Nature*, **489**: (7417), 561-565.

Seifert AW, Monaghan JR, Smith MD, Pasch B, Stier AC, Michonneau F and Maden M. 2012. The influence of fundamental traits on mechanisms controlling appendage regeneration. *Biological Reviews*, **87**: (2), 330-345.

Shah RV and Hiradhar PK. 1973. Studies on glycogen, glycogen synthetase and respiratory quotient in the normal and regenerating tail of the house lizard, *Hemidactylus flaviviridis*. *Neth. J. Zool*., **24**: (1)**,** 1-9.

Sharma P and Suresh B. 2008. Influence of COX-2-induced PGE2 on the inititiation and progression of tail regeneration in northern house Gecko, *Hemidactylus flaviviridis*. *Folia Biol.(Praha),* **54**: (6), 193-201.

Sharma P, Anushree P, Desai I and Suresh B. 2011. Role of COX-2 induced PGE2 in epimorphosis: regulation of stage specific expression of proteins. *J. Cell Tissue Res.,* **11**: (3), 2925-2936.

Shibata E, Yokota Y, Horita N, Kudo A, Abe G, Kawakami K and Kawakami A. 2016. Fgf signalling controls diverse aspects of fin regeneration. *Devel.*, **143:** (16), 2920-2929.

Sicard R. E. 1985. Regulation of vertebrate limb regeneration. *Oxford University Press*.

Sidorova VF. 1962. Liver regeneration in birds. *Bull.Exp. Biol.Med*., **52**: (6), 1426-1429.

Simpson SB. 1961. Induction of limb regeneration in the lizard Lygosoma laterale, by augmentation of the nerve supply. *Proc. Soc. Exp. Biol. Med.*, **107**: (1)**,** 108-111.

Singh SK, Meena L, Mula G, Saxena S, Swamy CVB and Idris MM. 2011. Proteome profile of zebrafish caudal fin based on one-dimensional gel electrophoresis LCMS/MS and two-dimensional gel electrophoresis MALDI MS/MS analysis. *J. Sep. Sci.*, **34**: (2), 225-232.

Slack JMW. 1982. Protein synthesis during limb regeneration in the axolotl. *J. Embryol. Exp. Morph*., **70,** 241-260.

Smith A, Avaron F, Guay D, Padhi BK and Akimenko MA. 2006. Inhibition of bmp signalling during zebrafish fin regeneration disrupts fin growth and scleroblasts differentiation and function. *Dev. Biol.*, **299**: (2)**,** 438-454.

Smith DA and Barker IK.1988. Healing of cutaneous wounds in the common garter snake (*Thamnopis sirtalis*). *Can. J. Vet. res*., **52,** 111-119.

Smoller BR, Dover JS and Hsu A. 1989. Keratinocyte protein expression in rapidly regenerating epidermis following laser-induced thermal injury. *Laser Surg. Med*., **9**: (3)**,** 264-270.

Song F, Wisithphrom K, Zhou J and Windsor LJ. 2006. Matrix metalloproteinase dependent and independent collagen degradation. *Front. Biosci.,* **11**, 3100-3120.

Spalding KL, Bergmann O, Alkass K, Bernard S, Salehpour M, Huttner HB, Boström E, Westerlund I, Vial Celine, Buchholz BA, Possnert G, Mash DC, Druid H and Frisén J. 2013. Dynamics of Hippocampal Neurogenesis in Adult Humans. *Cell*, **153**: (6)**,** 1219-27.

Spiegel S, Foster D and Kolesnick R. 1996. Signal transduction through lipid second messengers. *Curr. Opin. Cell Biol*., **8**: (2), 159.

Stamenkovic I. 2003. Extracellular matrix remodelling: the role of matrix metalloproteinases. *J. path.*, **200**: (4), 448-464.

Sternlicht MD and Werb Z. 2001. How matrix metalloproteinases regulate cell behaviour. *Annu. Rev. Cell. Dev. Biol*., **17**, 463-516.

Stevenson TJ and Vinarsky V. 2006. Tissue inhibitor of metalloproteinase 1 regulates matrix metalloproteinase activity during newt limb regeneration. *Dev. Dyn.,* **235:** (3)**,** 606-616.

Stocum DL. 1995. Wound repair in adult skin. In D.L. Stocum, (Ed.), *Wound Repair, Regeneration and Artificial Tissues*. pp. 7-20. R.G. Landes Co., Austin.

Stocum DL and Cameron JL. 2011. Looking Proximally and Distally: 100 Years of Limb Regeneration and Beyond. *Dev. Dyn.*, **240**: (5)**,** 943-968.

Stoick-Cooper CL, Weidinger G, Riehle KJ, Hubbert C, Major MB, Fausto N and Moon RT. 2007. Distinct Wnt signaling pathways have opposing roles in appendage regeneration. *Devel.*, **134**: (3), 479-489.

Summerbell D. 1974. A quantitative analysis of the effect of excision of the AER from the chick limb-bud. *J. Embryol. Exp. Morphol*., **32**: (3), 651-660.

Suresh B, Sharma P and Desai I. 2009. Evidence of the involvement of prostaglandinE2 in different cellular activities during epimorphic regeneration. *J. cell Tissue Res.,* **9**: (2), 1883-1890.

Suresh B, Yadav M and Desai I. 2010. Influence of FGF-2 on the antioxidant status in tissues during various stages of tail regeneration in the Northern house gecko, *Hemidactylus flaviviridis. J. Cell Tissue Res*., **10**: (1), 2091-2100.

Takahashi K, Tanabe K, Ohnuki M, Narita M, Ichisaka T, Tomoda K and Yamanaka S. 2007. Induction of pluripotent stem cells from adult human fibroblasts by defined factors. *Cell*, **131**: (5), 861-872.

Takeo M, Lee W and Ito M. 2015. Wound healing and skin regeneration. *Cold Spring Harb. Perspect. Med.*, **5**: (1), a023267.

Tal TL, Franzosa JA and Tanguay RL. 2010. Molecular Signaling Networks That Choreograph Epimorphic Fin Regeneration in Zebrafish – A Mini-Review. *Gerontology*, **56**: (2), 231-240.

Tanaka EM. 2003. Regeneration: if they can do it, why can't we? *Cell*, **113**: (5)**,** 559-562.

Tassava RA and Goss RJ. 1966. Regeneration rate and amputation level in fish fins and lizard tails. *Growth*, **30**: (1), 9-21.

Tassava RA, Nace JD and Wei Y. 1996. Extracellular matrix protein turnover during salamander limb regeneration. *Wound Repair Regen*., **4:** (1), 75.

Taub R. 2004. Liver Regeneration: From Myth to Mechanism. *Nat. Rev. Mol. Cell. Biol.*, **5**: (10), 836-47.

Than MP, Smith RA, Hammond C, Kelly R, Marsh_C, Maderal AD, and Kirsner RS. 2012. Keratin-based Wound Care Products for Treatment of Resistant Vascular Wounds. *J. Clin. Aesthet. Dermatol*., **5**: (12), 31-35.

Thorndyke MC and Carnevali MDC. 2001. Regeneration neurohormones and growth factors in echinoderms. *Can. J. Zool*., **79**: (7), 1171-1208.

Thummel R, Bai S, Sarras MP Jr, Song P, Mc-Dermott J, Brewer J, Perry M, Zhang X, Hyde DR and Godwin AR. 2006. Inhibition of zebrafish fin regeneration using in vivo electroporation of morpholinos against fgfr1 and msxb. *Dev. Dyn.*, **235**: (2), 336-346.

Toole BP and Gross J. 1971. The extracellular matrix of the regenerating newt limb: synthesis and removal of hyaluronate prior to differentiation. *Dev. Biol.*, **25**: (1), 57.

Towbin H, Staehelin T and Gordon J. 1979. Electrophoretic transfer of proteins from polyacrylamide gels to nitrocellulose sheets: procedure and some applications*. Proc. Natl. Acad. Sci. USA.,* **76**: (9), 4350-4354.

Travis DF. 1955. The Molting Cycle of the Spiny Lobster, *Panulirus argus* Latreille. II. Pre-Ecdysial Histological and Histochemical Changes in the Hepatopancreas and Integumental Tissues. *Biol. Bull.*, **108**: (1), 88-112.

Tsonis PA, Mescher AL and Tsonis KD. 1992. Protein synthesis in the newt regenerating limb: Comparative two-dimensional PAGE, computer analysis and protein sequencing. *Biochem. J.,* **281**: (Pt 3)**,** 665-668.

Tsonis PA. 1996. *Limb Regeneration*. Cambridge University Press, New York.

Tuchunduva M, Borelli P and Silva JRM. 2001. Experimental study of induced inflammation in the Brazilian boa (*Boa constrictor constrictor*). *J. Comp. Pathol*., **125**: (2-3), 174-181.

Uchida N, Buck DW, He D, Reitsma MJ, Masek M, Phan TV, Tsukamoto AS, Fred H. Gage and Weissman IL. 2000. Direct isolation of human central nervous system stem cells. *PNAS,* **97**: (26), 14720-14725.

Van Den Steen PE, Wuyts A, Husson SJ, Proost P, Van Damme J, Opdenakker G. 2003. Gelatinase B/MMP-9 and neutrophil collagenase/MMP-8 process the chemokines human GCP 2/CXCL6, ENA-78/CXCL5 and mouse GCP-2/LIX and modulate their physiological activities. *Eur. J. Biochem.*, **270**: (18), 3739-3749.

Vinarsky V, Atkinsona DL, Stevensona TJ, Keating MT and Odelberg SJ. 2005. Normal newt limb regeneration requires matrix metalloproteinase function. *Dev. Bio*., **279**: (1), 86.

Vincenti MP, White LA, Schroen DJ, Benbow U and Brinckerhoff CE. 1996. Regulating expression of the gene for matrix metalloproteinase-1 (collagenase): mechanisms that control enzyme activity, transcription, and mRNA stability. *Crit. Rev. Eukaryot. Gene. Expr.*, **6**: (4), 391-411.

Visse R and Nagase H. 2003. Matrix metalloproteinases and tissue inhibitors of metalloproteinases: structure, function and biochemistry. *Circ. Res*., **92:** (8), 827-839.

Vitt LJ. 1983. Tail loss in lizards: the significance of foraging and predator escape modes. *Herpetologica*, **39**: (2)**,** 151-165.

Vitulo N, Dalla Valle L, Skobo T, Valle G, Alibardi L. 2017. Transcriptome analysis of the regenerating tail vs. the scarring limb in lizard reveals pathways leading to successful vs. unsuccessful organ regeneration in amniotes. *Dev. Dyn.*, **246**: (2),116-34.

Vorontsova MA and Liosner LD. 1960. *Asexual Reproduction and Regeneration*. London: Pergamon Press, pp. 367-371.

Vu TH, Shipley JM, Bergers G, Berger JE, Helms JA, Hanahan D, Shapiro SD, Senior RM and Werb Z. 1998. MMP-9/gelatinase B is a key regulator of growth plate angiogenesis and apoptosis of hypertrophic chondrocytes. *Cell*, **93**: (3)**,** 411-422.

Wallace HH. 1981. *Vertebrate limb regeneration*. Wiley, Chichester [Eng.]; New York.

Wang L, Marchionni MA, Tassava RA. 2000. Cloning and neuronal expression of a type III newt neuregulin and rescue of denervated nerve-dependent newt limb blastemas by rhGGF2. *J. Neurobiol.*, **43:** (2)**,** 150-158.

Webb G and Manoli C. 1989. Crocodiles of Australia. Reed, Chatswood, Australia.

Werb Z. 1997. ECM and cell surface proteolysis: regulating cellular ecology. *Cell*, **91:** (4), 439-442.

White JA, Boffa MB, Jones B, Petkovich M. 1994. A zebrafish retinoic acid receptor expressed in the regenerating caudal fin. *Devel.*, **120**: (7), 1861-1872.

Wiley EO, Fuiten AM, Doosey MH, Lohman BK, Merkes C and Azuma M. 2015. The caudal skeleton of the zebrafish, *Danio rerio*, from a phylogenetic perspective: a polyural interpretation of homologous structures. *Copeia*, **103:** (4), 740-750.

William DA, Saitta B, Gibson JD, Traas J, Markov V, Gonzalez DM, Sewell W, Anderson DM, Pratt SC and Rappaport EF. 2007. Identification of oscillatory genes in somitogenesis from functional genomic analysis of a human mesenchymal stem cell model. *Dev. Biol*., **305**: (1), 172-186.

Wojcik SM, Bundman DS, Roop DR. 2000. Delayed wound healing in keratin 6a knockout mice. *Mol. Cell Biol.*, **20**: (14), 5248-5255.

Wong JW and Cagney G. 2010. An overview of label-free quantitation methods in proteomics by mass spectrometry. *Proteome bioinformatics*., Springer Protocols, Humana Press, pp 273-283.

Wu CH, Tsai MH, Ho CC, Chen CY and Lee HS. 2013. *De novo* transcriptome sequencing of axolotl blastema for identification of differentially expressed genes during limb regeneration. *BMC Genomics*, **14,** 434.

Wynn TA. 2008. Cellular and molecular mechanisms of fibrosis. *J. Pathol*., **214**: (2), 199-210.

Wysocki VH, Resing KA, Zhang Q and Cheng G. 2005. Mass spectrometry of peptides and proteins. *Methods*, **35**: (3), 211-222.

Yadav M, Anusree P, Desai I and Suresh B. 2012. Influence of extraneous FGF-2 and its antagonist antiFGF-2, on the progress of tail regeneration in *Hemidactylus flaviviridis*. *JLS*, **2**: (2), 164 -172.

Yadav M, Sharma P, Desai I, Pilo B and Suresh B. 2008. Influence of administration of FGF-2 and antiFGF-2 on the nucleic acids and protein profiles of the regenerating tail of northern house gecko *Hemidactylus flaviviridis. J. Cell Tissue Res.,* **8**: (3), 1557-1563.

Yakushiji N, Suzuki M, Satoh A, Sagai T, Shiroishi T and Kobayashi H. 2007. Correlation between *Shh* expression and DNA methylation status of the limb specific *Shh* enhancer region during limb regeneration in amphibians. *Dev. Biol.*, **312:** (1)**,** 171-182.

Yang EV and Bryant SV. 1994. Developmental regulation of a matrix metalloproteinase during regeneration of axolotl appendages. *Dev. Biol*., **166:** (2), 696.

Yang EV, Gardiner DM, Carlson MRJ, Nugas CA and Bryant SV. 1999. Expression of Mmp-9 and related matrix metalloproteinase genes during axolotl limb regeneration. *Dev. Dyn.*, **216**: (1), 2-9.

Ye HQ and Azar DT. 1998. Expression of gelatinases A and B, and TIMPs 1 and 2 during corneal wound healing. *Invest. Ophthalmol. Vis. Sci*., **39:** (6), 913- 921.

Yokoyama H. 2008. Initiation of limb regeneration: The critical steps for regenerative capacity. *Dev. Growth Differ*., **50**: (1), 13-22.

Yong VW, Forsyth PA, Bell R, Krekoski CA and Edwards DR. 1998. Matrix metalloproteinases and diseases of the CNS. *Trends Neurosci*., **21**: (2), 75-80.

Yu J, Vodyanik MA, Smuga-Otto K, Antosiewicz- Bourget J, Frane JL, Tian S, Nie J, Jonsdottir GA, Ruotti V, Stewart R, Slukvin II, Thomson JA. 2007. Induced pluripotent stem cells derived from human somatic cells. *Science*, **318**: (5858)**,** 1917-1920.

Yu Q and Stamenkovic I. 2000. Cell surface-localized matrix metalloproteinase-9 proteolytically activates TGF-beta and promotes tumor invasion and angiogenesis. *Genes Dev.*, **14**: (2), 163 -176.

Zauner H, Begemann G, Mari-Beffa M and Meyer A. 2003. Differential regulation of *msx* genes in the development of the gonopodium, an intromittent organ, and of the "sword," a sexually selected trait of swordtail fishes (*Xiphophorus*). *Evolution and Development*, **5**: (5), 466-477.

Zhang J, Bai S, Zhang X, Nagase H and Sarras MP. 2003. The expression of gelatinase A (MMP 2) is required for normal development of zebrafish embryos. *Dev. Genes Evol.*, **231:** (9), 456.

Zika JM. 1969. A histological study of the regenerative response in a lizard, *Anolis carolinensis. J. Exp. Zool. A Ecol. Genet. Physiol.*, **172**: (1), 1-9.

Zimowska M, Brzoska E, Swierczynska M, Streminska W and Moraczewski J. 2003. Distinct patterns of MMP-9 and MMP-2 activity in slow and fast twitch skeletal muscle regeneration in vivo. *Int. J. Dev. Biol.*, **52**: (2-3), 307-314.

Zoran MJ. 2001. *Regeneration in Annelids*. John Wiley & Sons, Ltd, Chichester, England.