

1. Datos de Contacto:

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Anexos:3684

2. Líneas de Investigación:

As a former researcher in Dr. Abigail Tucker's laboratory at King's College London, my group is interested in the mechanisms controlling embryonic craniofacial morphogenesis and regeneration. Our projects and collaborations includes the following topics:

- tooth development and regeneration in animals with different tooth replacement capabilities (i.e. mouse, snake, frog)
- the role of epithelial stem cells in the development of teeth and salivary gland
- explant culture from craniofacial organs
- microanatomy of the embryo, 3D reconstruction and 3D printing

3. Proyectos de Investigación:

Fondecyt Initiation Into Research 2014

"Role of Hyaluronan during tooth development and regeneration"

4. Publicaciones:

1: Gaete M, Fons JM, Popa EM, Chatzeli L, Tucker AS. Epithelial topography for

repetitive tooth formation. Biol Open. 2015 Nov 4. pii: bio.013672. doi: 10.1242/bio.013672. [Epub ahead of print] PubMed PMID: 26538639.

2: Wells KL, Gaete M, Matalova E, Deutsch D, Rice D, Tucker AS. Dynamic relationship of the epithelium and mesenchyme during salivary gland initiation: the role of Fgf10. Biol Open. 2013 Aug 9;2(10):981-9. doi: 10.1242/bio.20135306.

eCollection 2013. PubMed PMID: 24167707; PubMed Central PMCID: PMC3798193.

3: Lee-Liu D, Moreno M, Almonacid LI, Tapia VS, Muñoz R, von Marées J, Gaete M, Melo F, Larraín J. Genome-wide expression profile of the response to spinal cord injury in *Xenopus laevis* reveals extensive differences between regenerative and non-regenerative stages. *Neural Dev.* 2014 May 22;9:12. doi: 10.1186/1749-8104-9-12. PubMed PMID: 24885550; PubMed Central PMCID: PMC4046850.

4: Alfaqeeh SA, Gaete M, Tucker AS. Interactions of the tooth and bone during development. *J Dent Res.* 2013 Dec;92(12):1129-35. doi: 10.1177/0022034513510321. Epub 2013 Oct 23. PubMed PMID: 24155263.

5: Gaete M, Tucker AS. Organized emergence of multiple-generations of teeth in snakes is dysregulated by activation of Wnt/beta-catenin signalling. *PLoS One.* 2013 Sep 3;8(9):e74484. doi: 10.1371/journal.pone.0074484. eCollection 2013. PubMed PMID: 24019968; PubMed Central PMCID: PMC3760860.

6: Gaete M, Muñoz R, Sánchez N, Tampe R, Moreno M, Contreras EG, Lee-Liu D, Larraín J. Spinal cord regeneration in *Xenopus* tadpoles proceeds through activation of Sox2-positive cells. *Neural Dev.* 2012 Apr 26;7:13. doi: 10.1186/1749-8104-7-13. PubMed PMID: 22537391; PubMed Central PMCID: PMC3425087.

7: San Martin IA, Varela N, Gaete M, Villegas K, Osorio M, Tapia JC, Antonelli M, Mancilla EE, Pereira BP, Nathan SS, Lian JB, Stein JL, Stein GS, van Wijnen AJ, Galindo M. Impaired cell cycle regulation of the osteoblast-related heterodimeric transcription factor Runx2-Cbfbeta in osteosarcoma cells. *J Cell Physiol.* 2009 Dec;221(3):560-71. doi: 10.1002/jcp.21894. PubMed PMID: 19739101; PubMed Central PMCID: PMC3066433.

8: Contreras EG, Gaete M, Sánchez N, Carrasco H, Larraín J. Early requirement of Hyaluronan for tail regeneration in *Xenopus* tadpoles. *Development*. 2009 Sep;136(17):2987-96. doi: 10.1242/dev.035501. PubMed PMID: 19666825.

5. Libros y patentes:

Se puede poner una foto?

