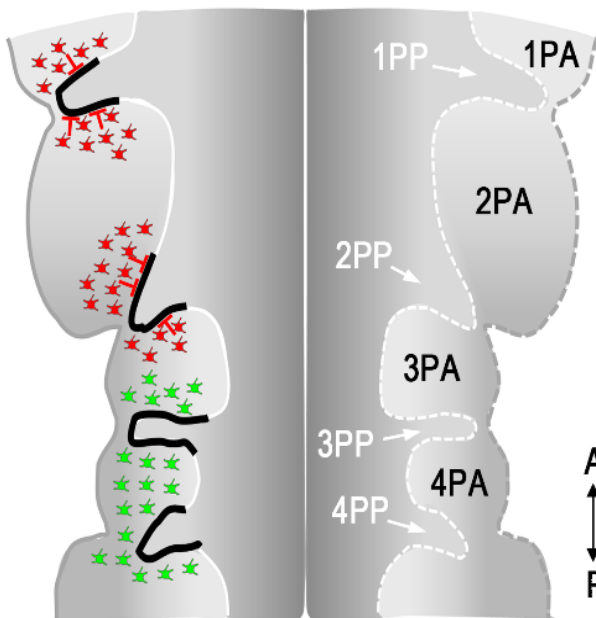





THYMUS ONTOGENY

We are investigating the potential of the endoderm of distinct PP to form a thymus, that may be (or not) restricted by pharyngeal arch mesenchyme-derived molecular cues.

WORKING MODEL



-  - PP endoderm with thymic competence
-  - Local PA mesenchyme capable to sustain thymus development
-  - Local "inhibitory" PA mesenchyme to thymus development

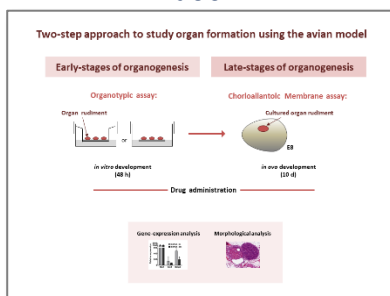
The location and number of thymic rudiments varies among vertebrates: 2PP–6PP (sharks); 2PP (frogs); 2PP–3PP (reptiles); 3PP–4PP (bony fish and birds); 3PP (mammals).

In addition, accessory thymi can be found in the cervical region in humans.

HYPOTHESIS

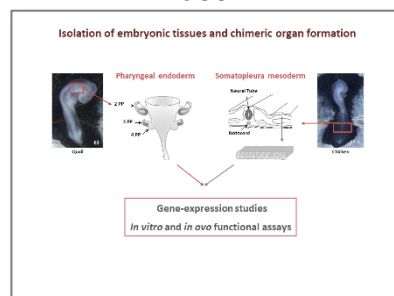
A phylogenetically conserved genetic program to "make a thymus" is embodied in the endoderm of different PP, independent of their specific anatomical location.

video I



[Figueiredo & Neves, JoVE \(2018a\)](#)

video II



[Figueiredo & Neves, JoVE \(2018b\)](#)