

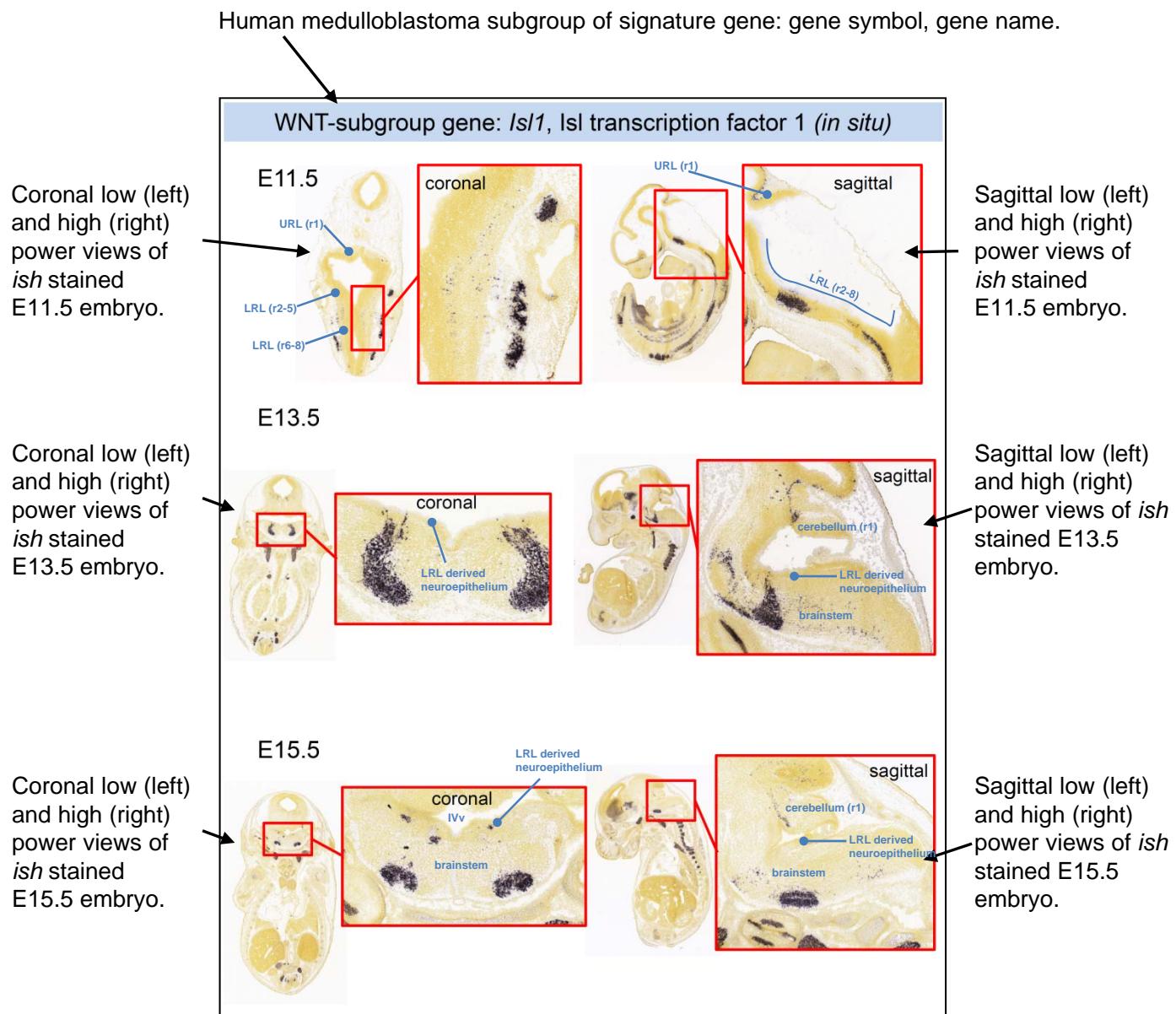
# Supplemental Dataset 1: Developmental Gene Expression Distribution 1.

This dataset reports the expression distribution in the developing mouse hindbrain (rhombomeres 1-8) of 24 and 25 signature genes of human WNT-subgroup and SHH-subgroup medulloblastoma, respectfully. The genes in this dataset include all of the most significantly and differentially expressed signature genes of human SHH and WNT-subtype medulloblastoma (see Thompson et al., 2006 and Supplemental Methods section) that are present in the Developing Mouse Brain database ([www.brain-map.org](http://www.brain-map.org)). The dataset includes individual representative *in situ* hybridization stained sections as well as 3-dimensional expression patterns across the entire thickness of the hindbrain compiled from all *in situ* stained sections using the Developing Mouse Brain: Brain Explorer 2 Atlas ([www.brain-map.org](http://www.brain-map.org)). The expression pattern of each signature gene is reported across three pages. A detailed description of the layout of these pages is provided in the next three summary pages.

**NB.** The data contained in this dataset was used to compile the developmental gene expression patterns shown in Figure 1a of the main manuscript (see Supplemental Methods for more details).

## Page 1: Raw *in situ* data

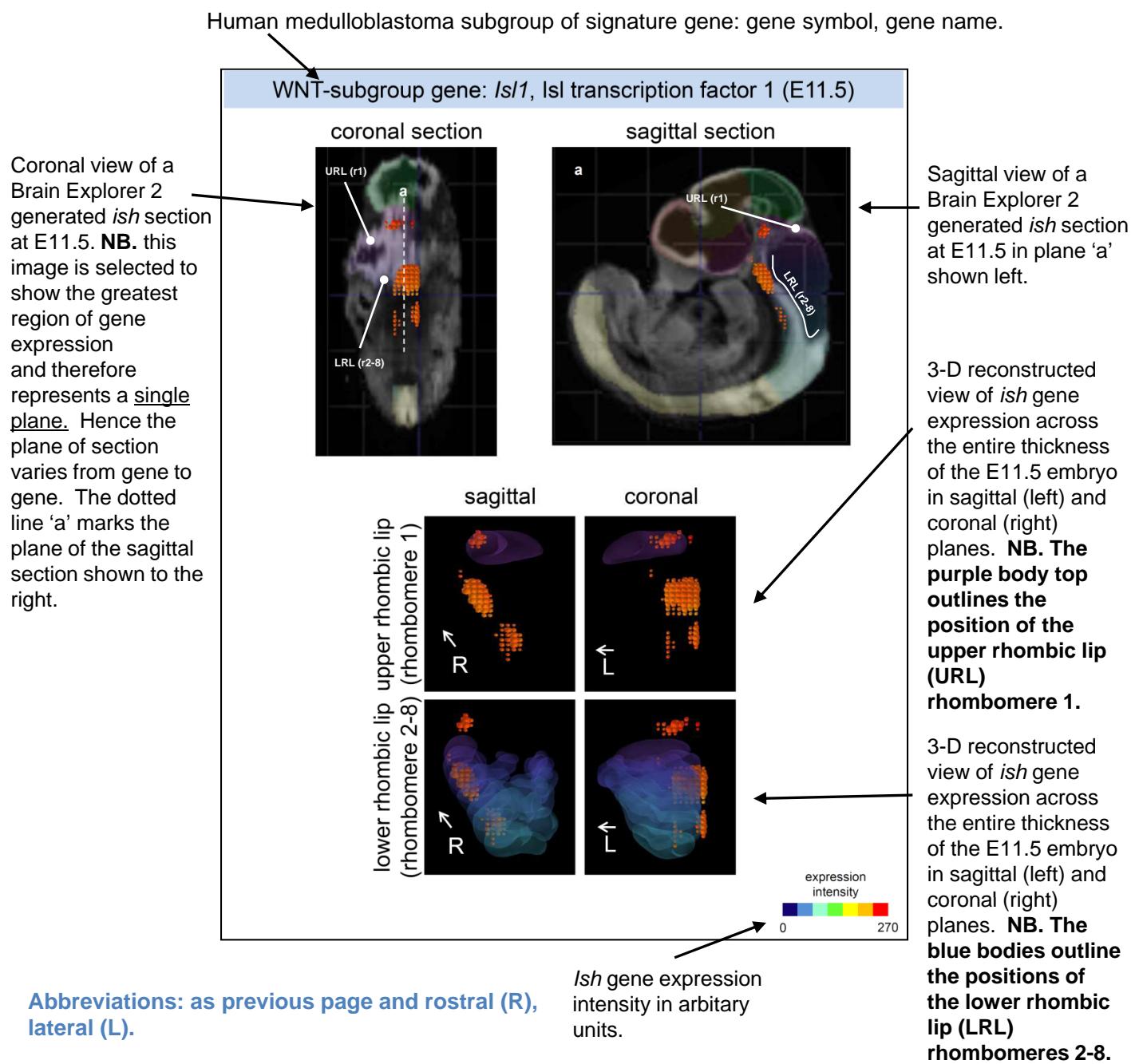
The first data page for each gene contains representative high resolution images of *in situ* hybridization (*ish*) stained sections downloaded from the Developing Mouse Brain archive. Low and high power views of sections of embryonic day (E) 11.5, 13.5 and 15.5 are shown as illustrated in the example below. Positive areas are stained black; counterstain is light brown. Areas of particular interest for some genes are indicated with red arrows and additional high-power insets. The expression patterns of most genes in the Developing Mouse Brain archive are provided as sagittal sections: where available, we have also included coronal sections.



Abbreviations: Upper rhombic lip (URL), Lower rhombic lip (LRL), Rhombomere (r)  
IVv (fourth ventricle)

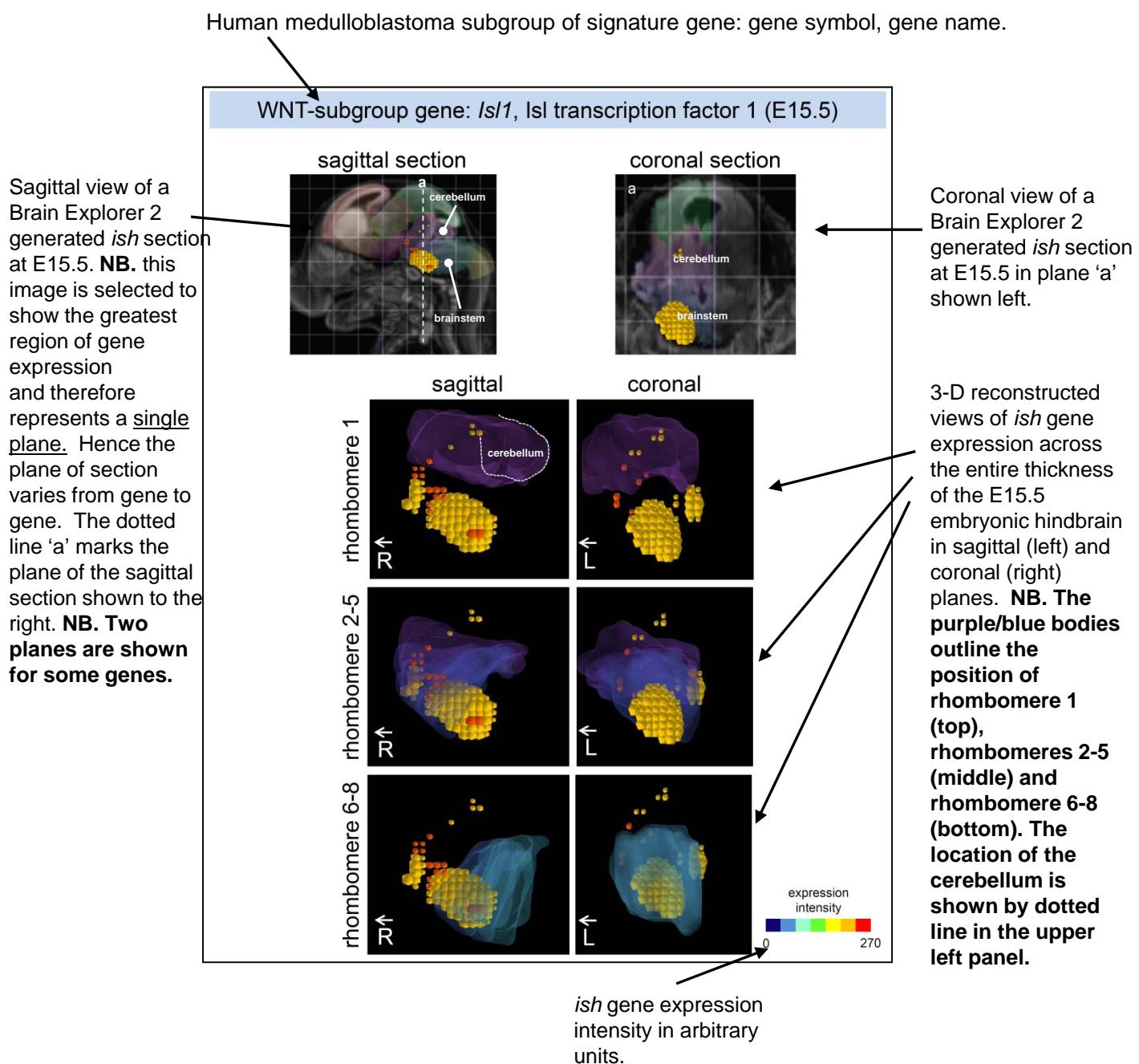
## Page 2: 3-dimensional Brain Explorer 2 expression images, E11.5

The second data page illustrates the expression pattern of the corresponding gene across the full thickness of rhombomeres (r) 1-8 at E11.5. All images were generated using the Brain Explorer 2 application within the Developing Mouse Brain archive (<http://developingmouse.brain-map.org/content/explorer>). Brain Explorer 2 is a desktop software application that generates **unbiased and objective** 3-dimensional (D) expression distribution patterns of specific genes within the brain region. 3-D gene expression patterns are generated from all raw *ish* stained sections and registered to a 3-D mouse atlas as described within the application website. Brain Explorer 2 allows the overlay of specific anatomical regions e.g., rhombomeres, as provided in the current supplemental data. Gene expression is represented as colored spheres.



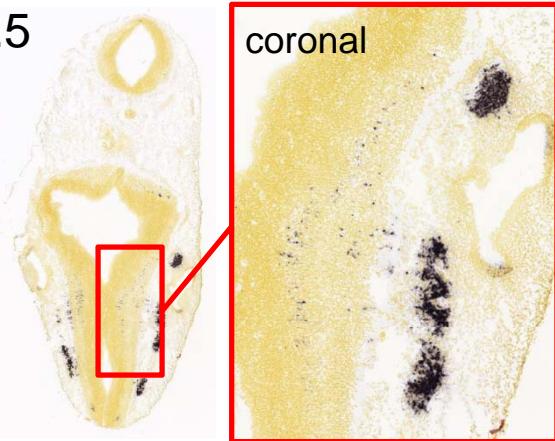
## Page 3: 3-dimensional Brain Explorer 2 expression images, E15.5

The third data page illustrates the expression pattern of the corresponding gene across the full thickness of rhombomeres (r) 1-8 at E15.5. All images were generated using the Brain Explorer 2 application within the Developing Mouse Brain archive (<http://developingmouse.brain-map.org/content/explorer>). Similar to page 2, graphics also include the position of the rhombomeres for reference. Gene expression is represented as colored spheres.

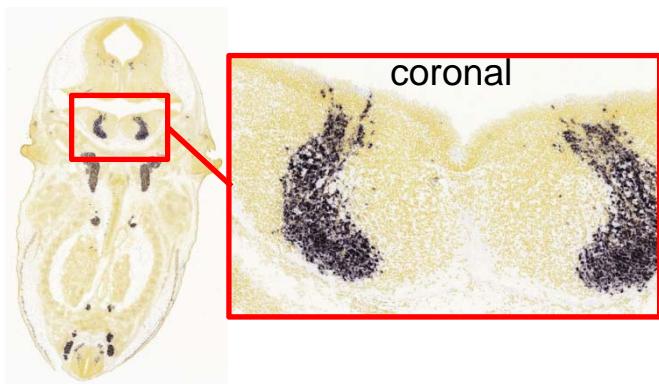


## WNT-subgroup gene: *Isl1*, Isl transcription factor 1 (*in situ*)

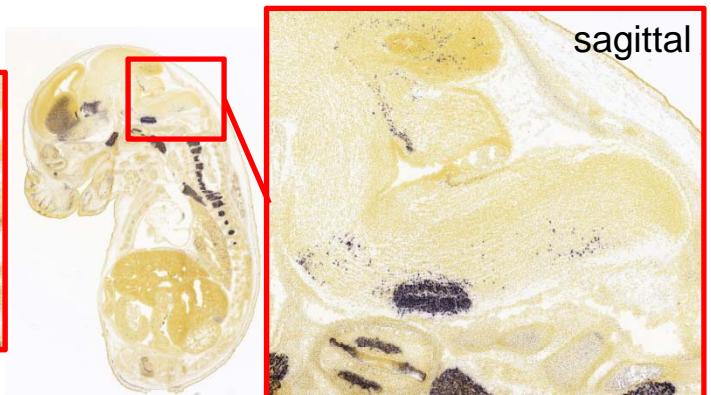
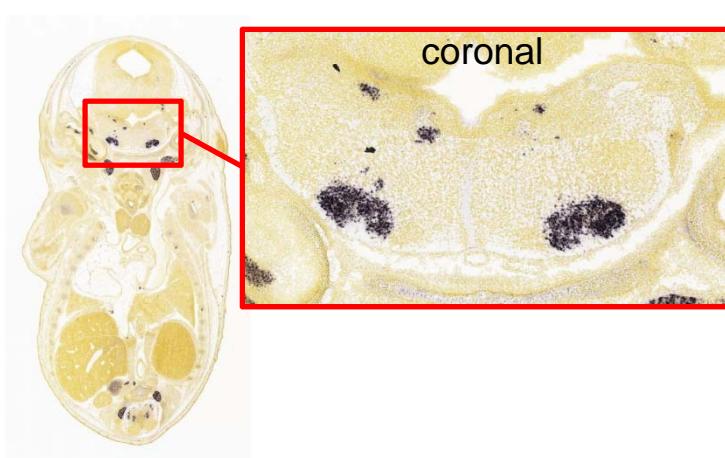
E11.5



E13.5

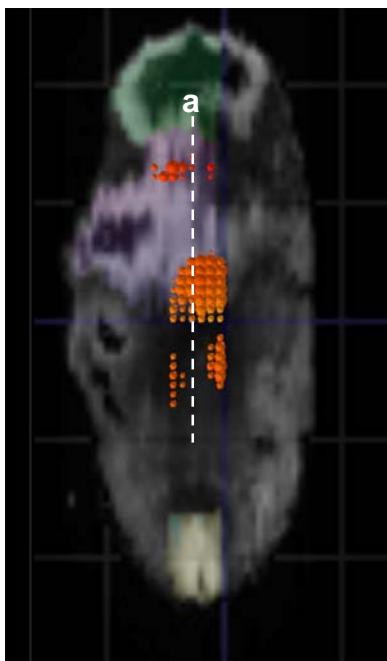


E15.5

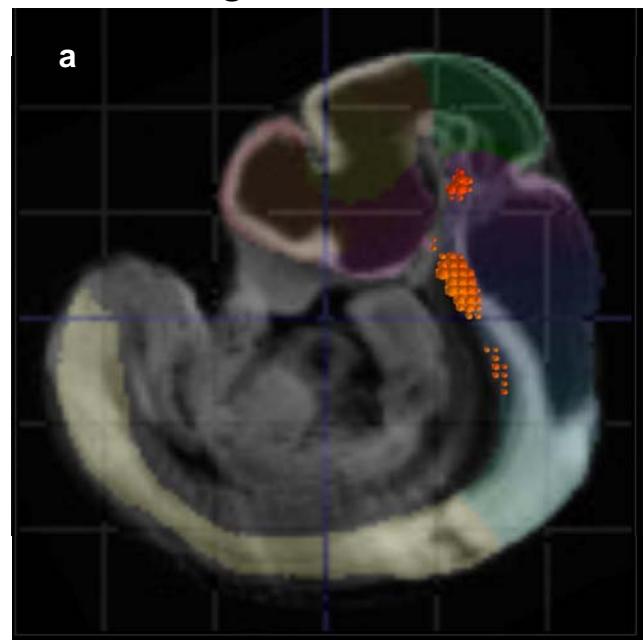


## WNT-subgroup gene: *Isl1*, Isl transcription factor 1 (E11.5)

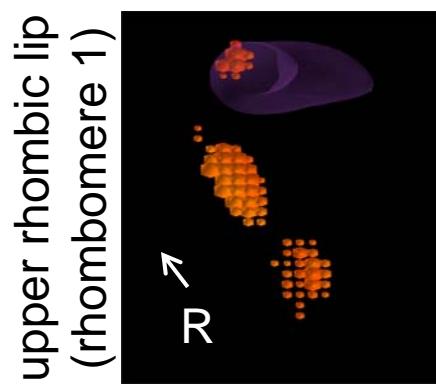
coronal section



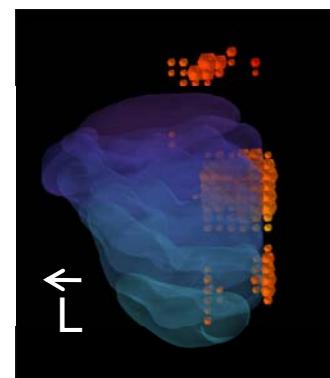
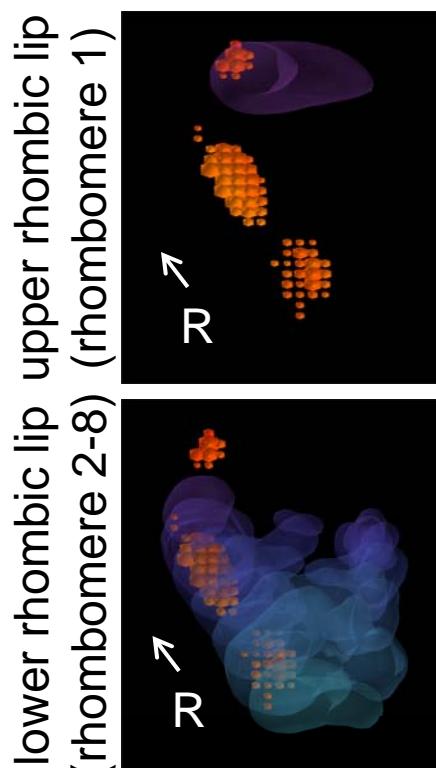
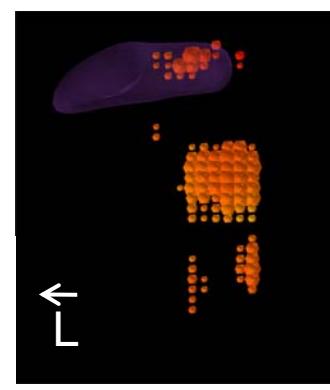
sagittal section



sagittal



coronal

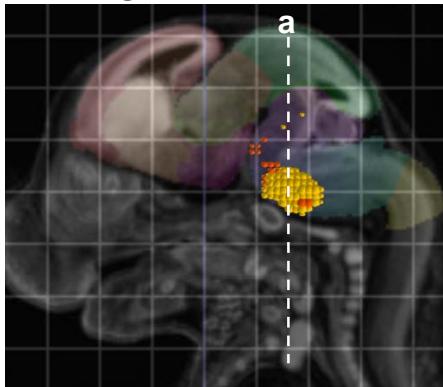


expression intensity

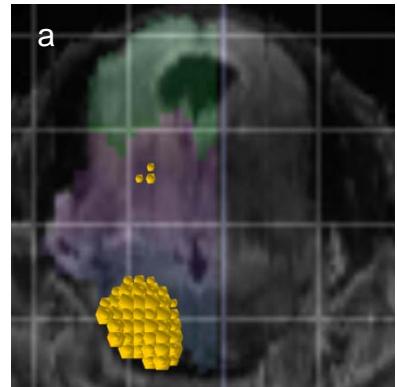


## WNT-subgroup gene: *Isl1*, Isl transcription factor 1 (E15.5)

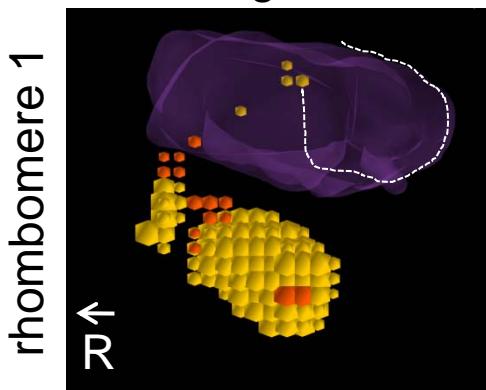
sagittal section



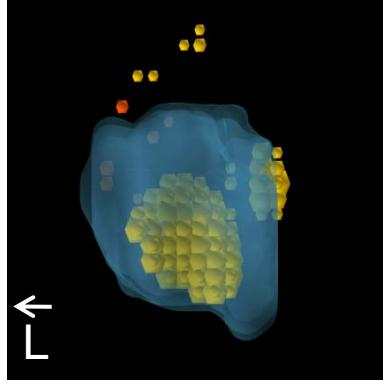
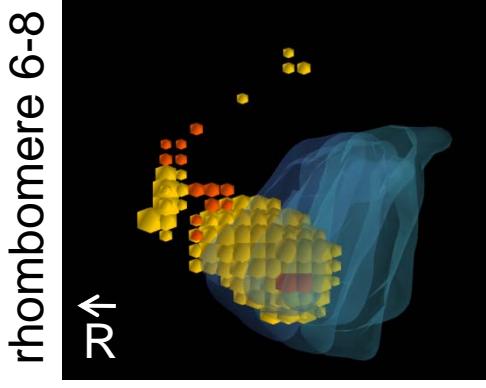
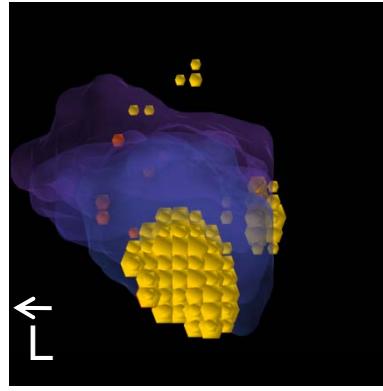
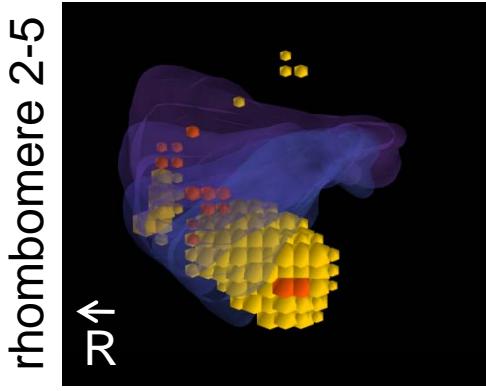
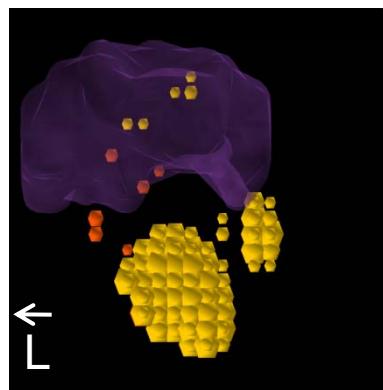
coronal section



sagittal



coronal



expression  
intensity



## WNT-subgroup gene: *Epha4*, Ephrin receptor A 4 (*in situ*)

E11.5



E13.5

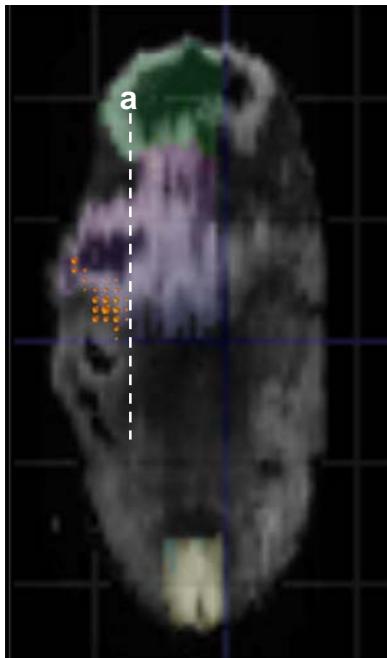


E15.5

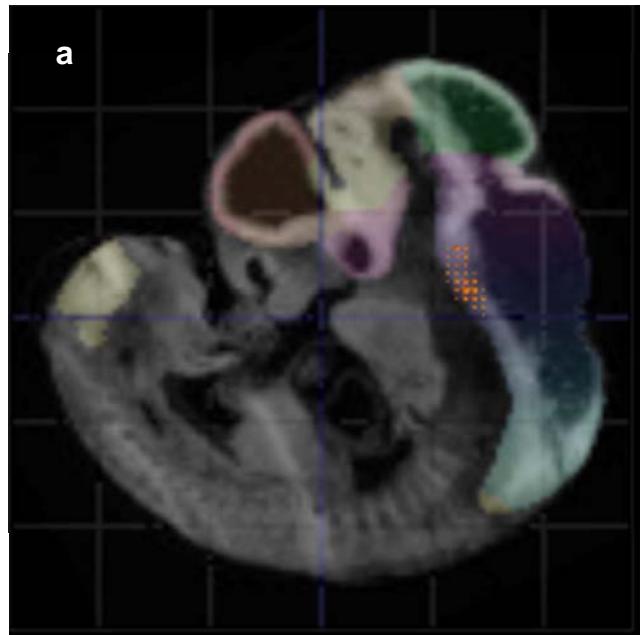


## WNT-subgroup gene: *Epha4*, Ephrin receptor A 4 (E11.5)

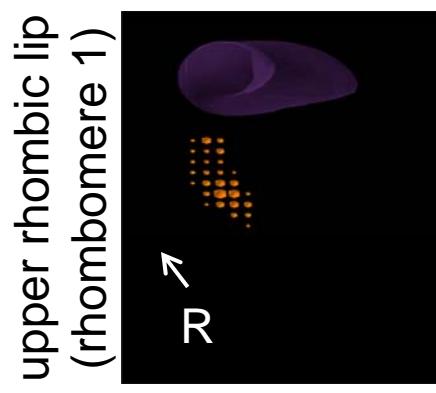
coronal section



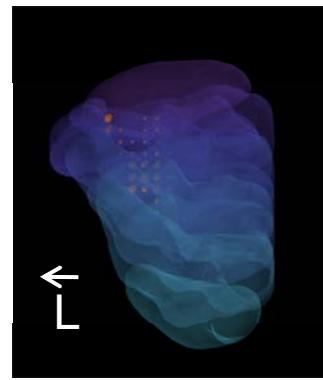
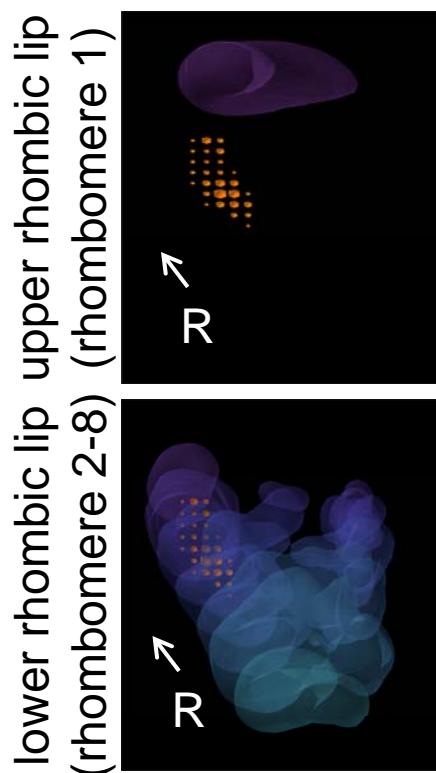
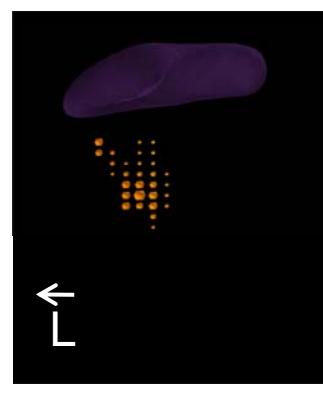
sagittal section



sagittal



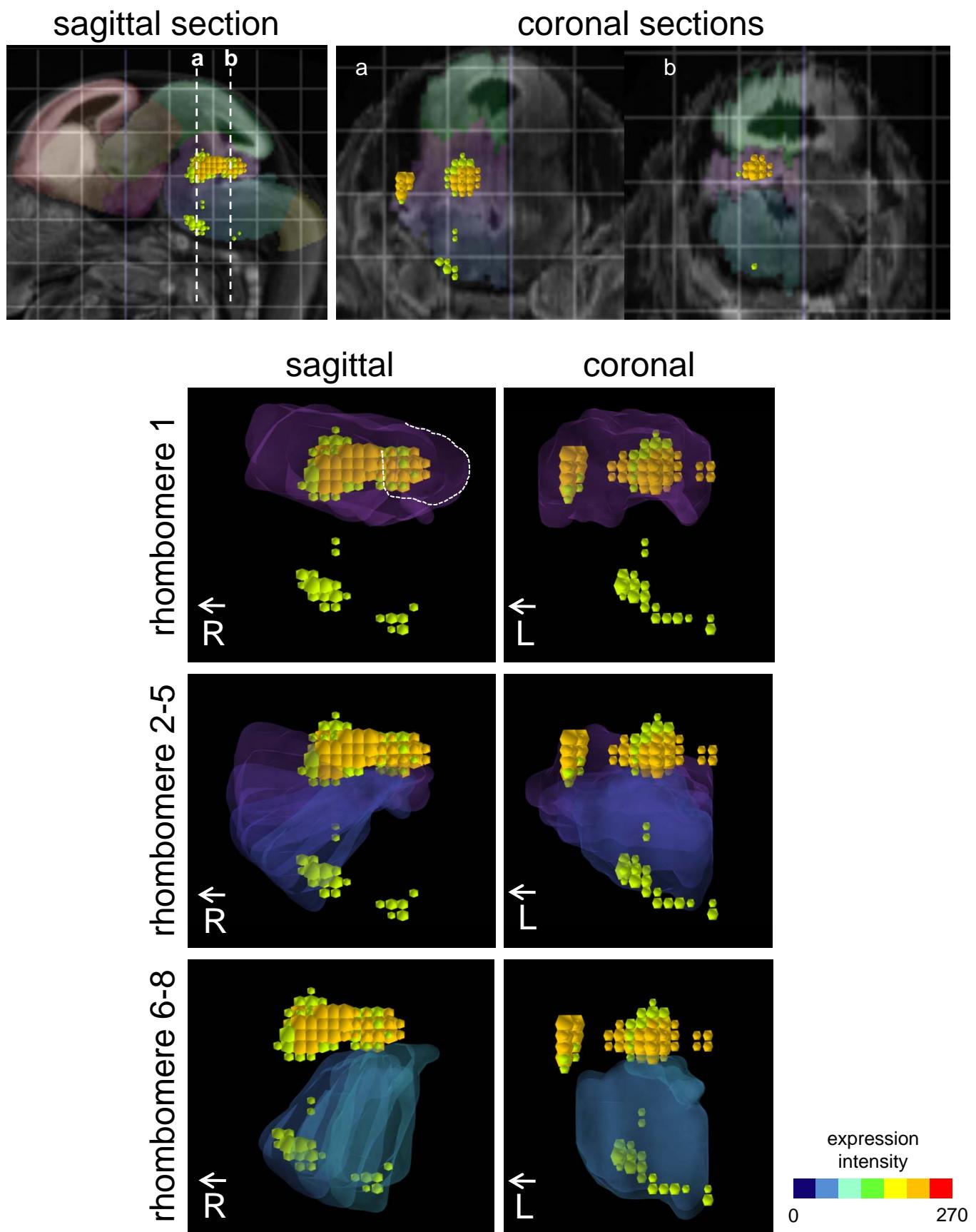
coronal



expression  
intensity

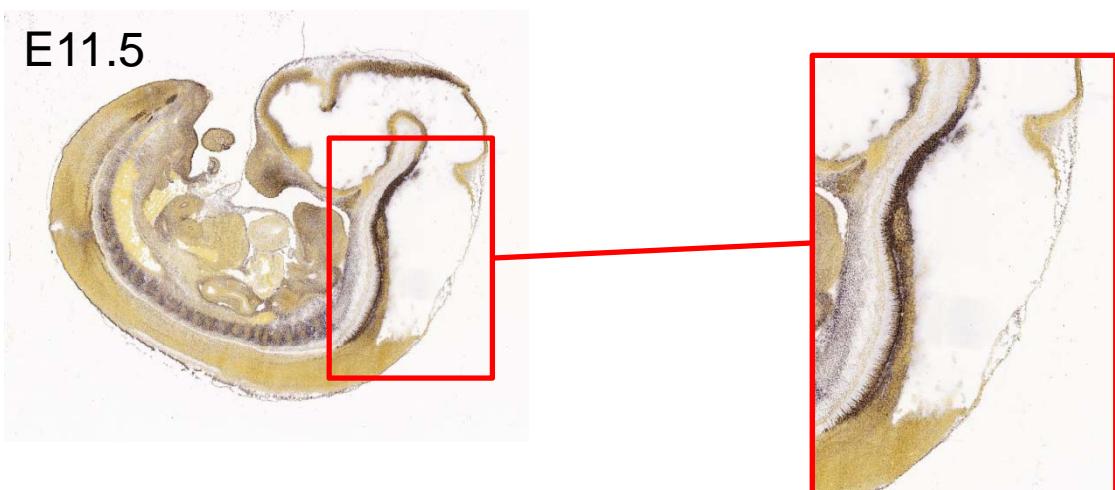


## WNT-subgroup gene: *Epha4*, Ephrin receptor A 4 (E15.5)

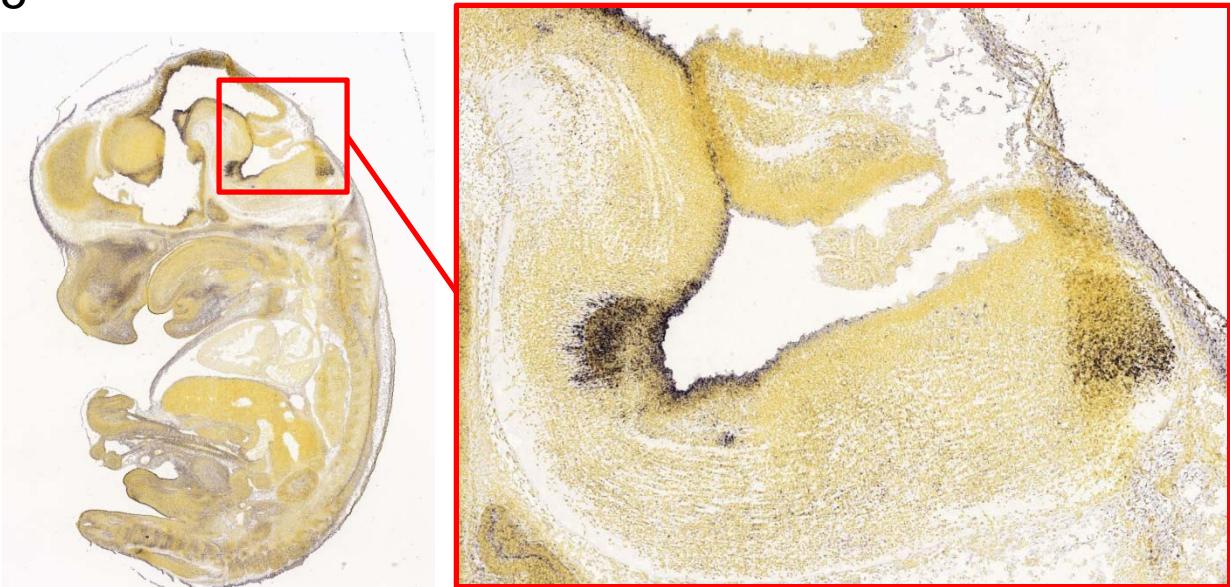


## WNT-subgroup gene: *Odz3*, Odd Oz/ten-m 3 (*in situ*)

E11.5



E13.5

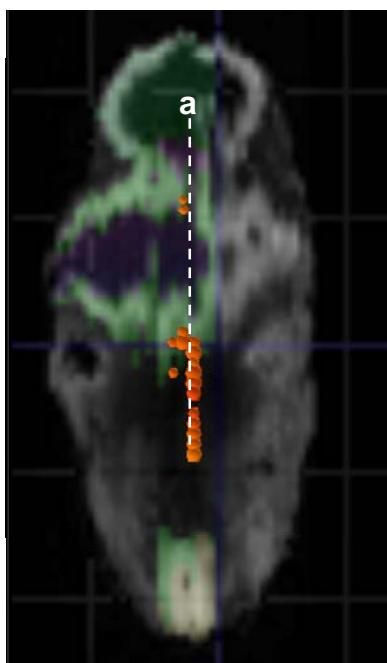


E15.5

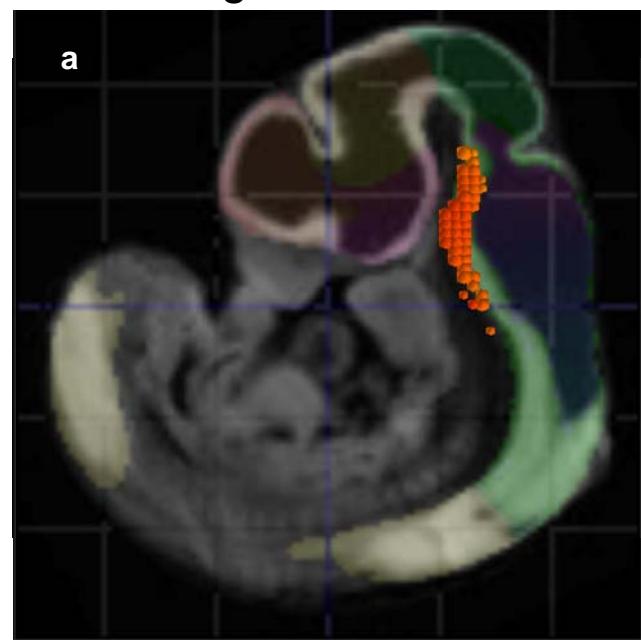


## WNT-subgroup gene: *Odz3*, Odd Oz/ten-m 3 (E11.5)

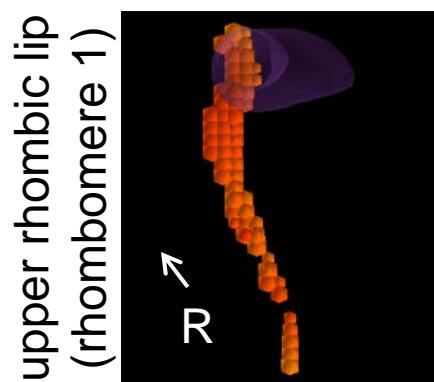
coronal section



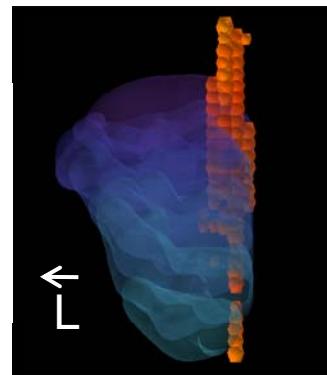
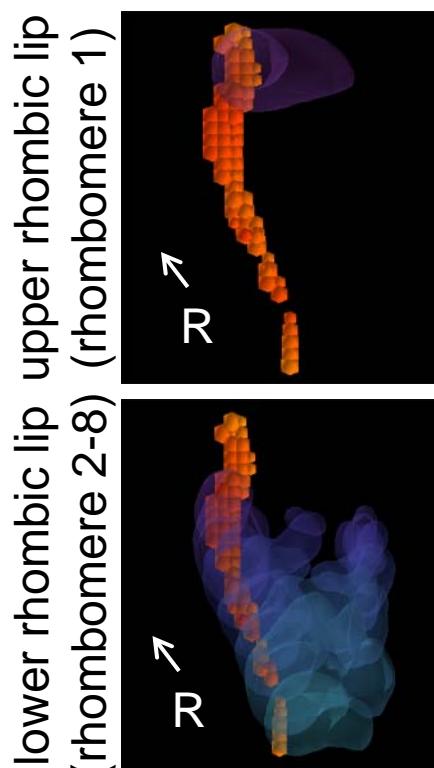
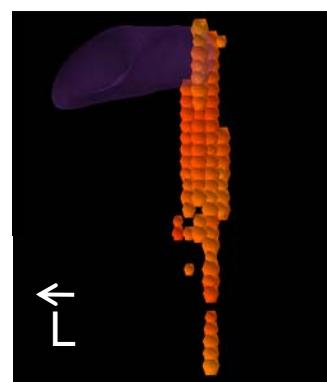
sagittal section



sagittal



coronal



expression  
intensity

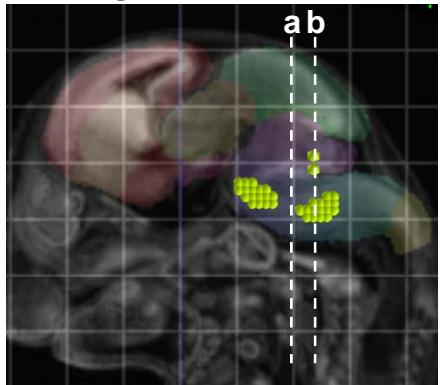


0

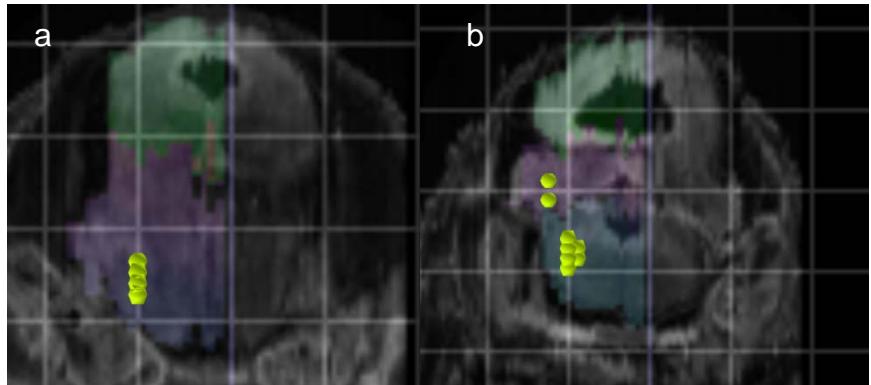
270

## WNT-subgroup gene: *Odz3*, Odd Oz/ten-m 3 (E15.5)

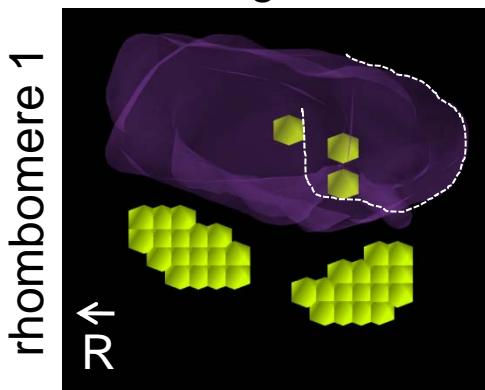
sagittal section



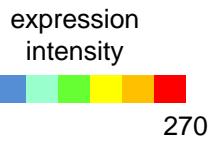
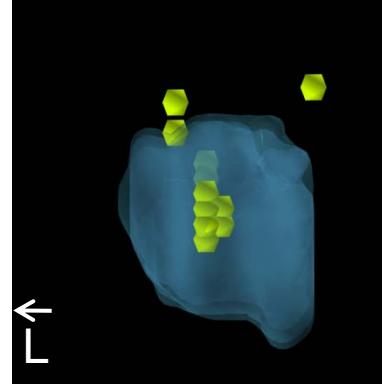
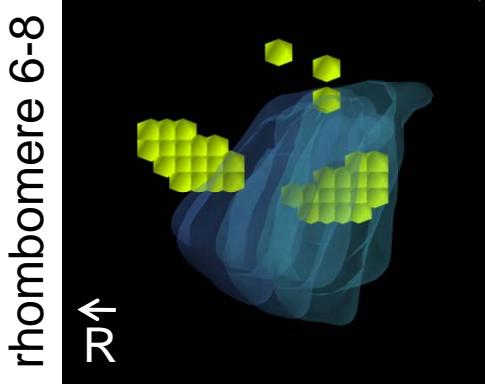
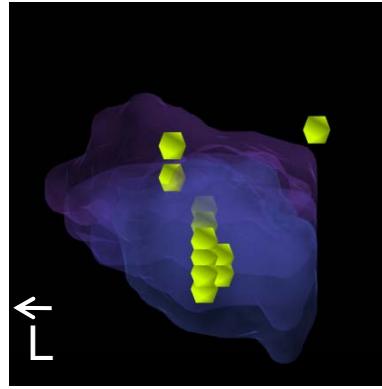
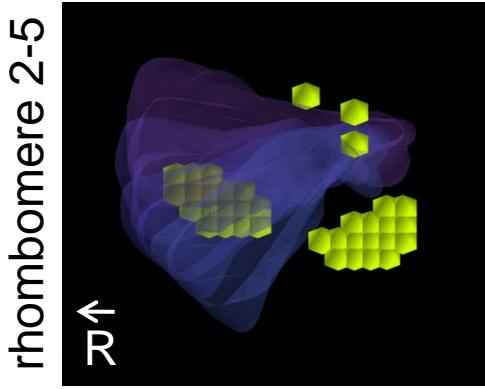
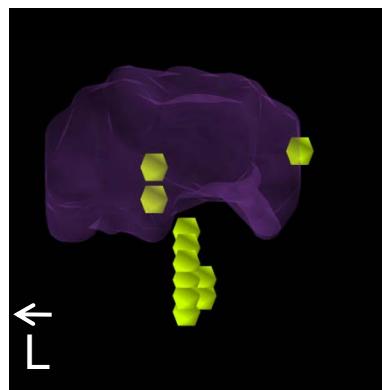
coronal sections



sagittal



coronal

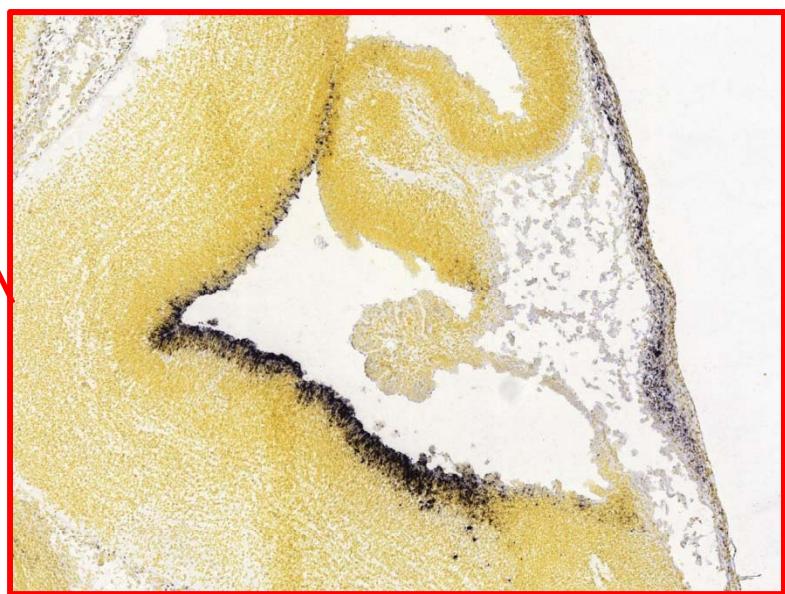


## WNT-subgroup gene: *Tnc*, Tenascin C (*in situ*)

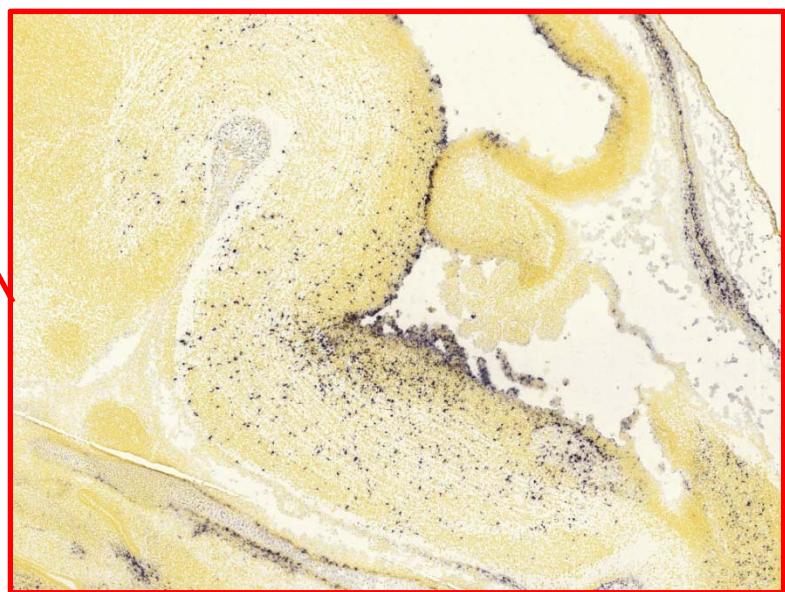
E11.5



E13.5

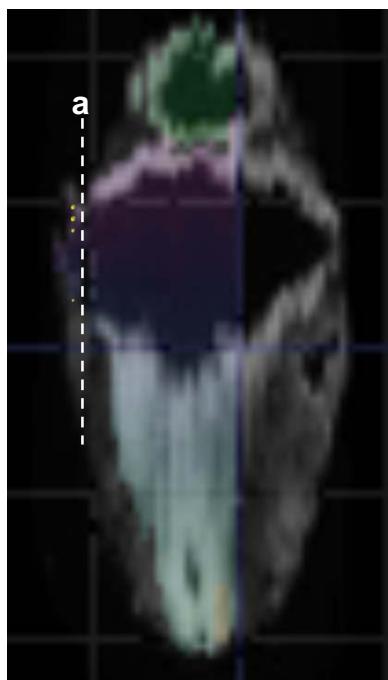


E15.5

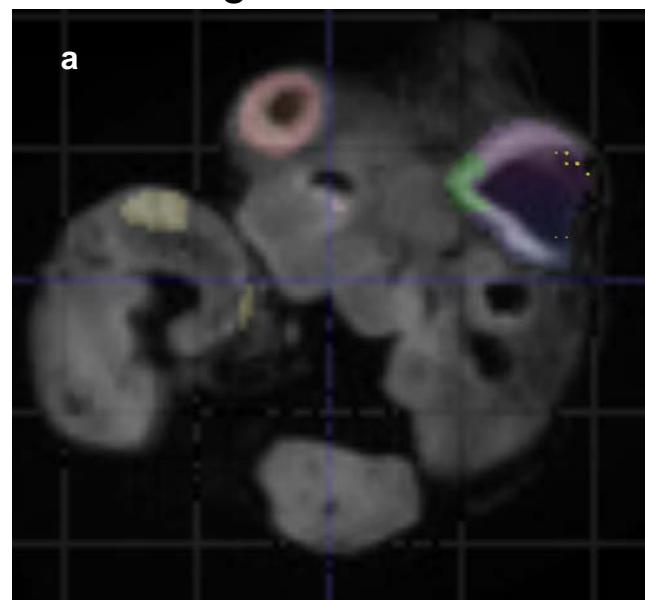


## WNT-subgroup gene: *Tnc*, Tenascin C (E11.5)

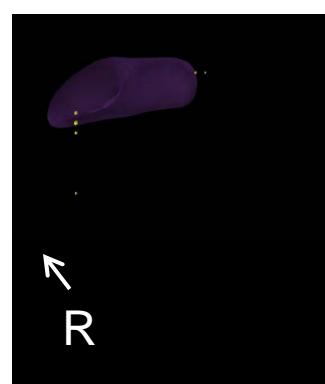
coronal section



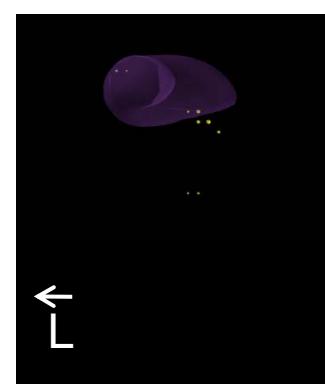
sagittal section



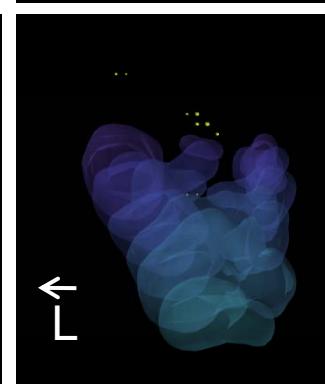
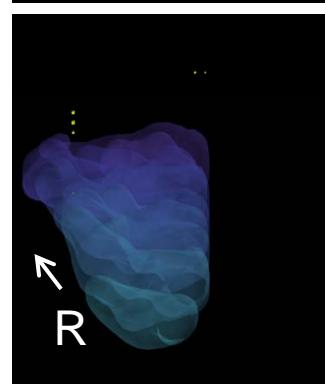
sagittal



coronal



lower rhombic lip upper rhombic lip  
(rhombomere 2-8) (rhombomere 1)



expression  
intensity

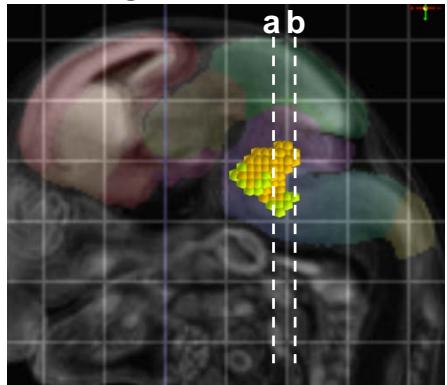


0

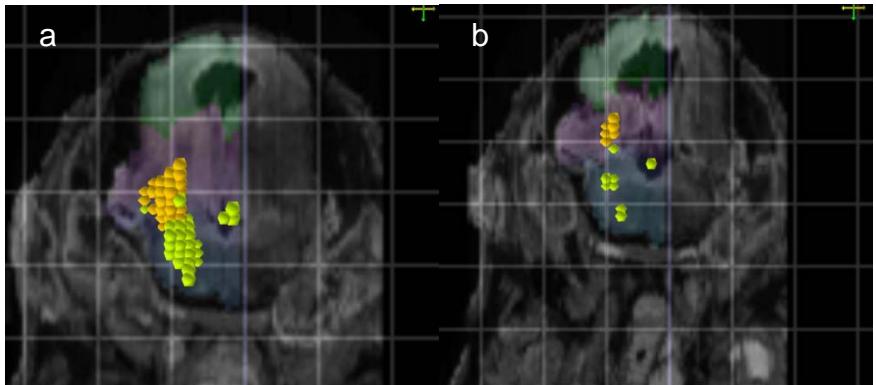
270

## WNT-subgroup gene: *Tnc*, Tenascin C (E15.5)

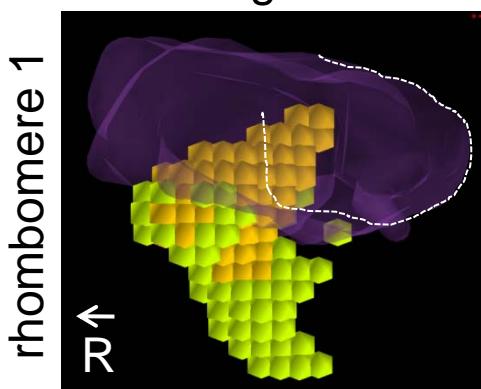
sagittal section



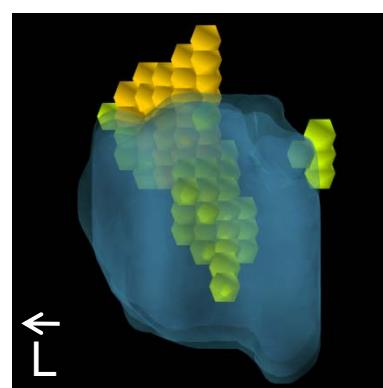
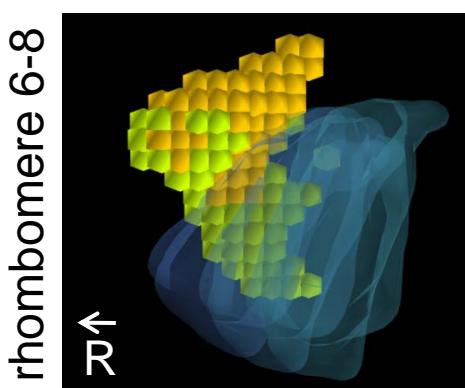
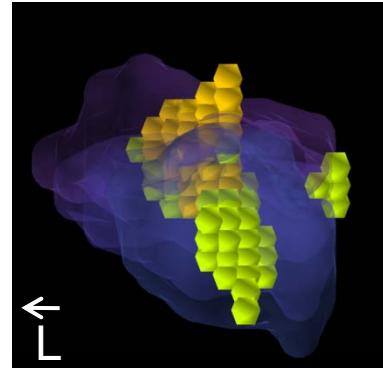
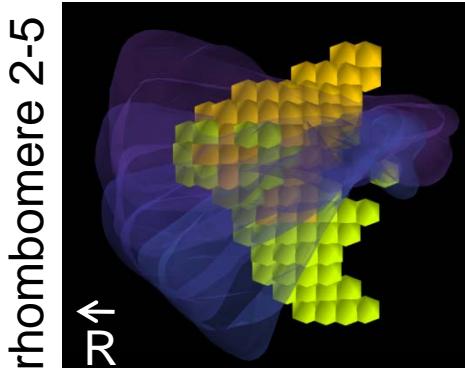
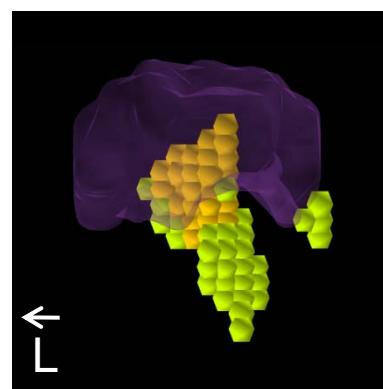
coronal sections



sagittal



coronal



expression intensity

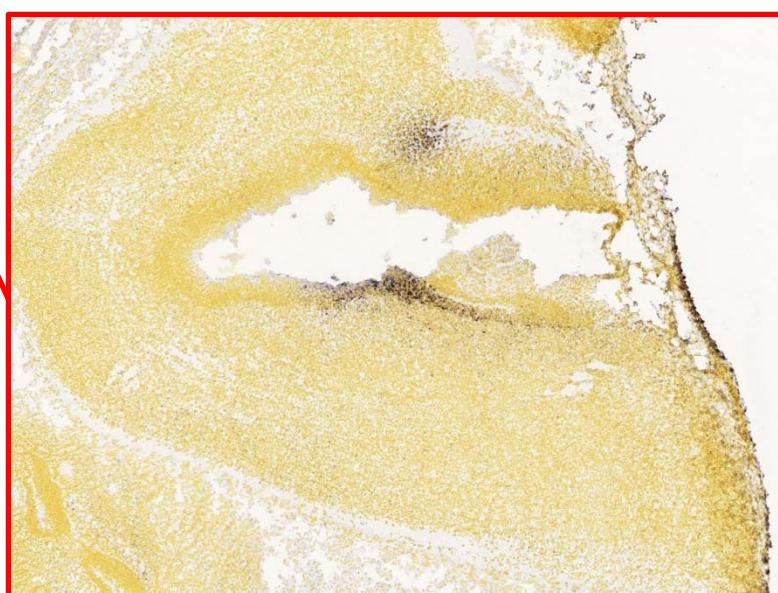
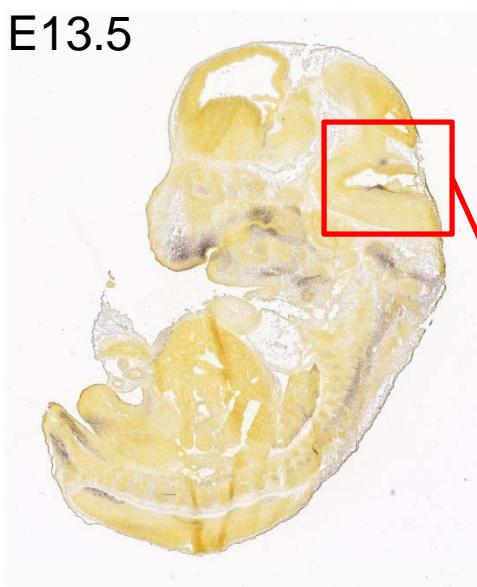


## WNT-subgroup gene: *Epha3*, Eph receptor A3 (*in situ*)

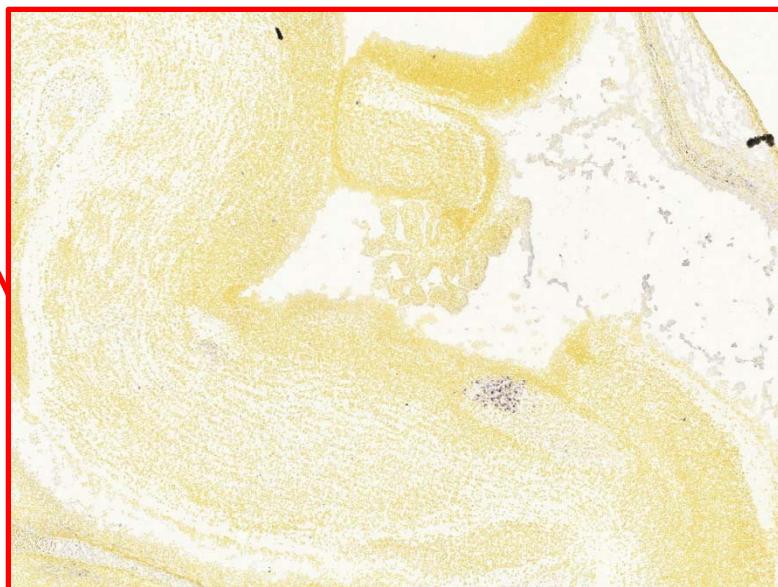
E11.5



E13.5

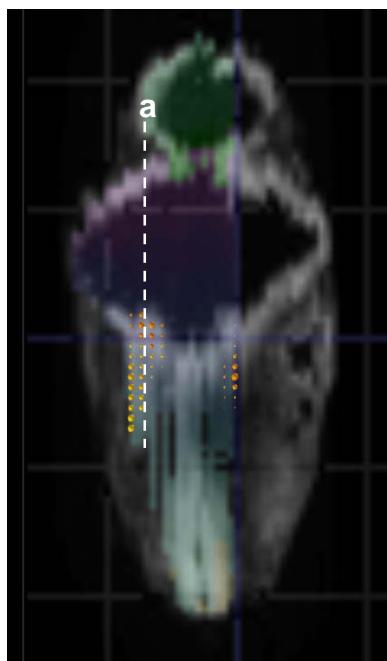


E15.5

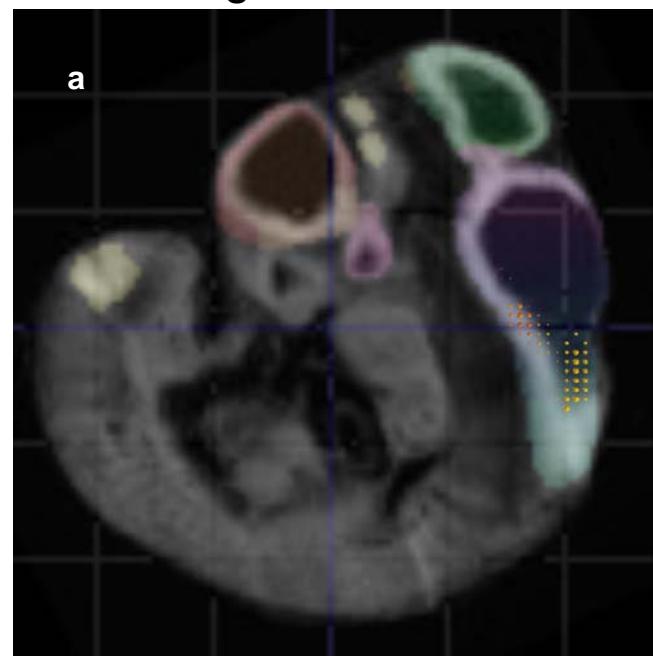


## WNT-subgroup gene: *Epha3*, Eph receptor A3 (E11.5)

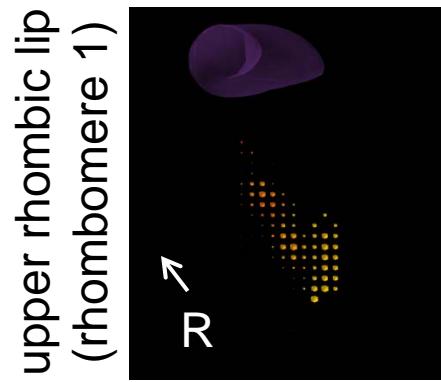
coronal section



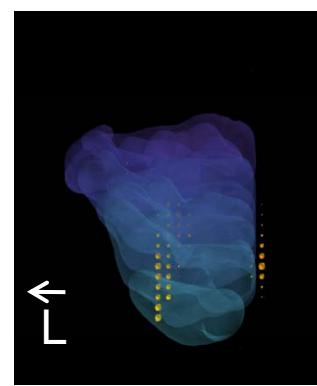
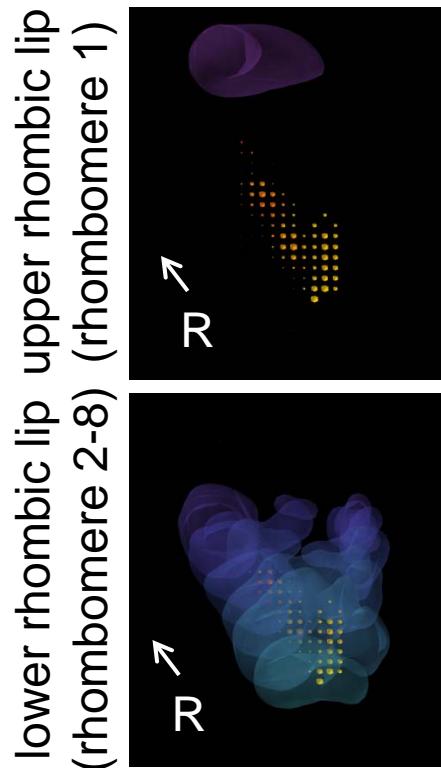
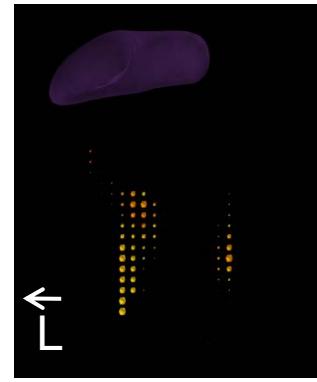
sagittal section



sagittal



coronal



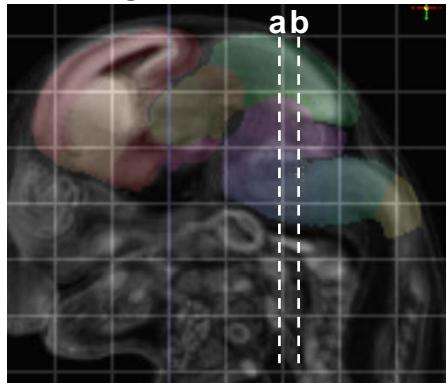
lower rhombic lip upper rhombic lip  
(rhombomere 2-8) (rhombomere 1)

expression intensity

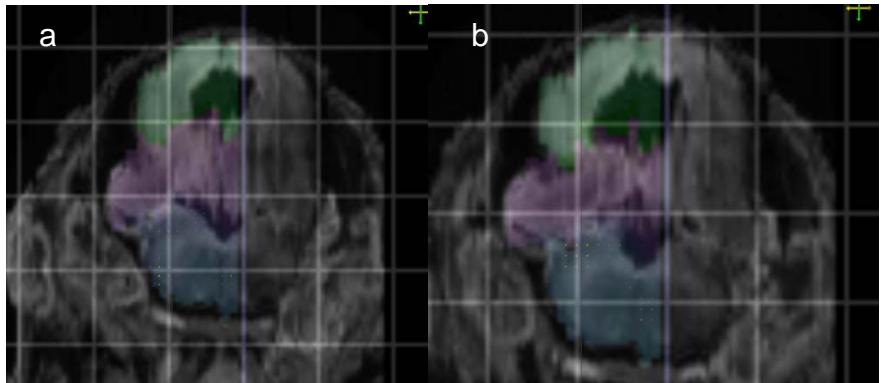
0 270

## WNT-subgroup gene: *Epha3*, Eph receptor A3 (E15.5)

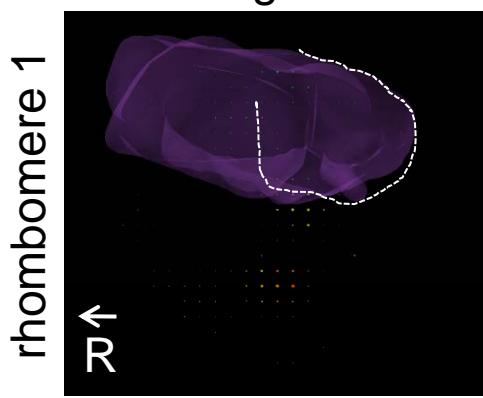
sagittal section



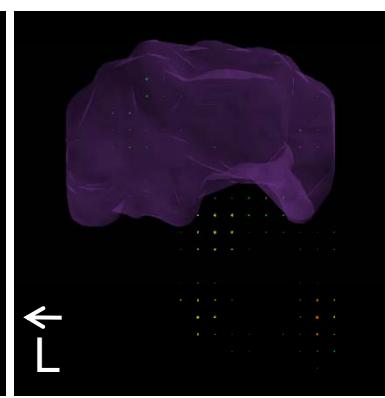
coronal sections



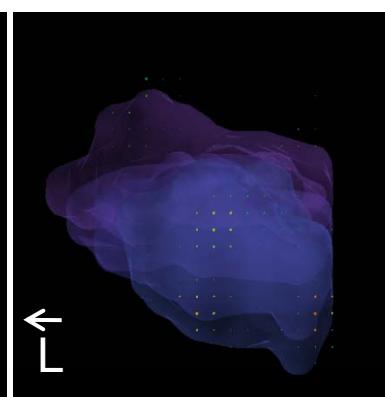
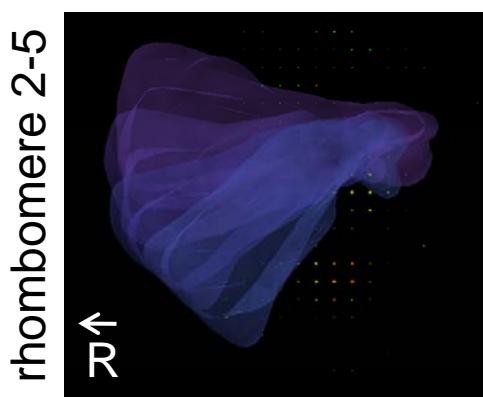
sagittal



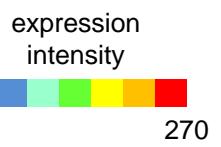
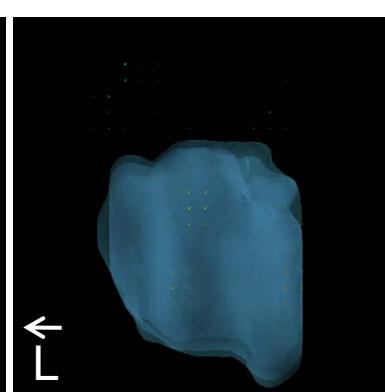
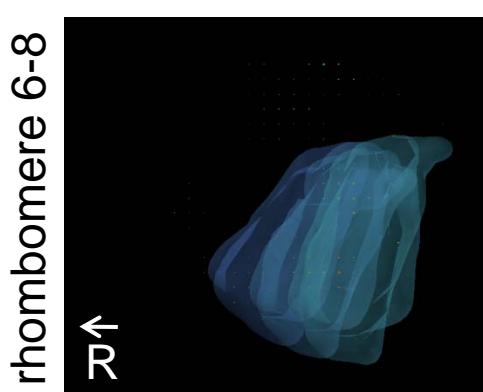
coronal



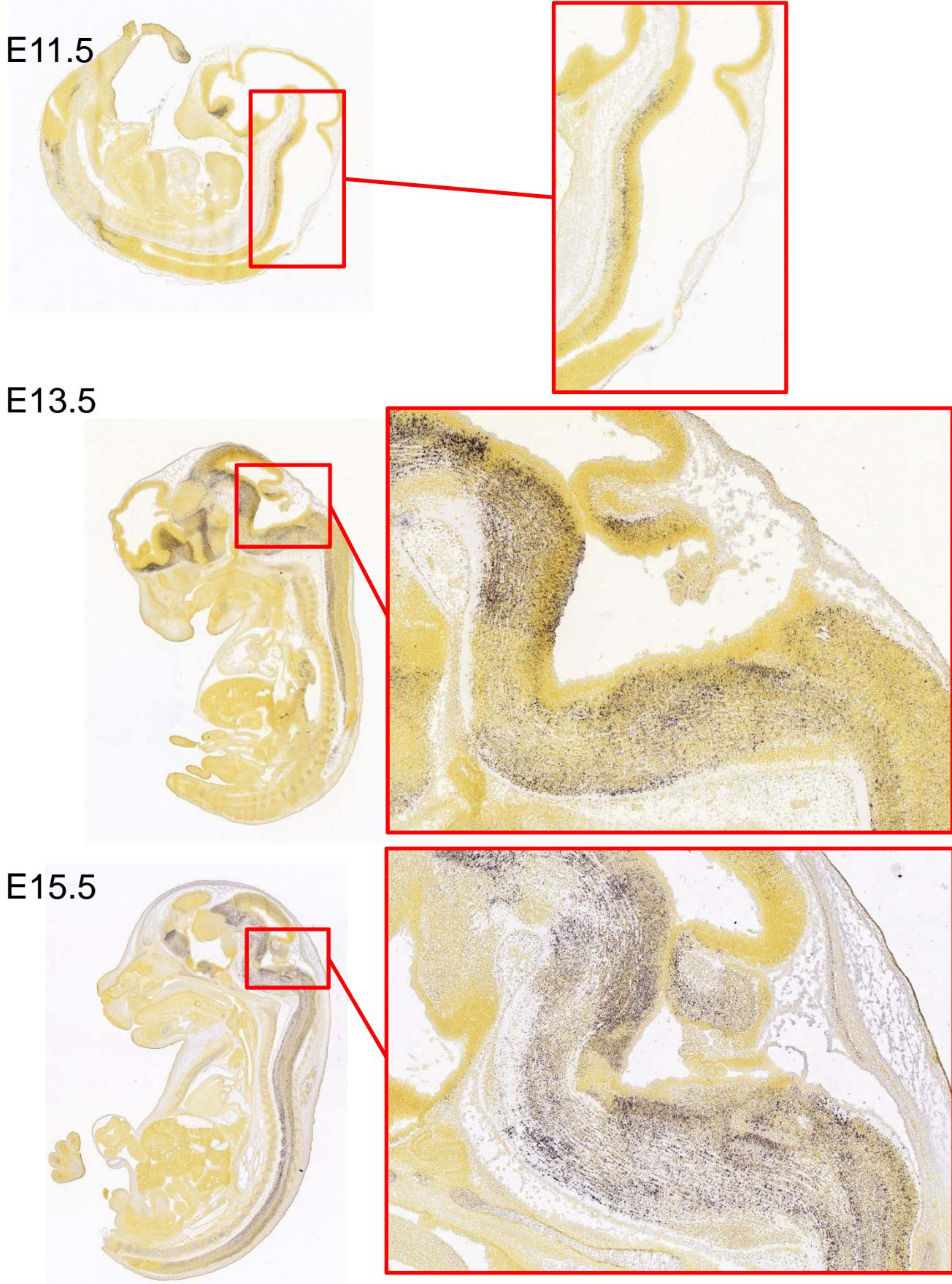
rhombomere 2-5



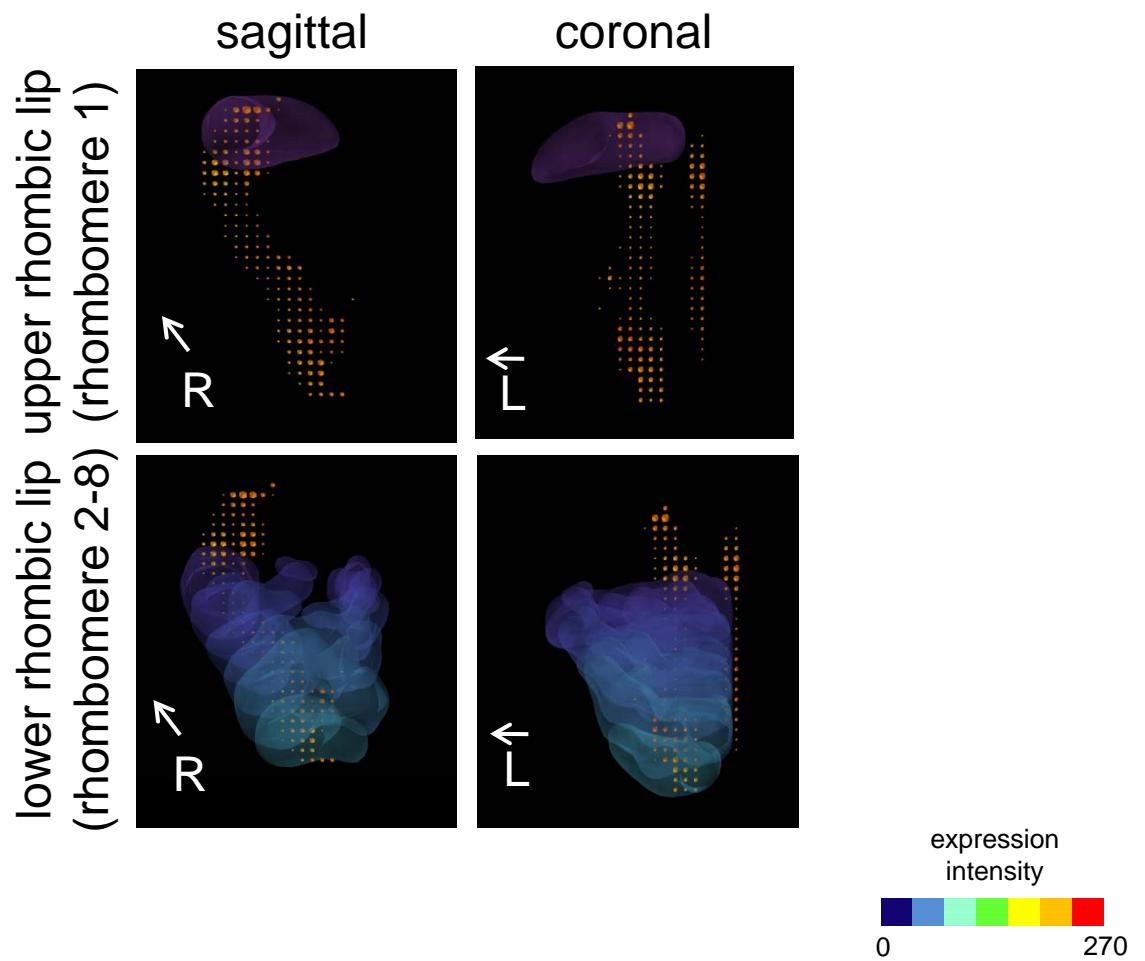
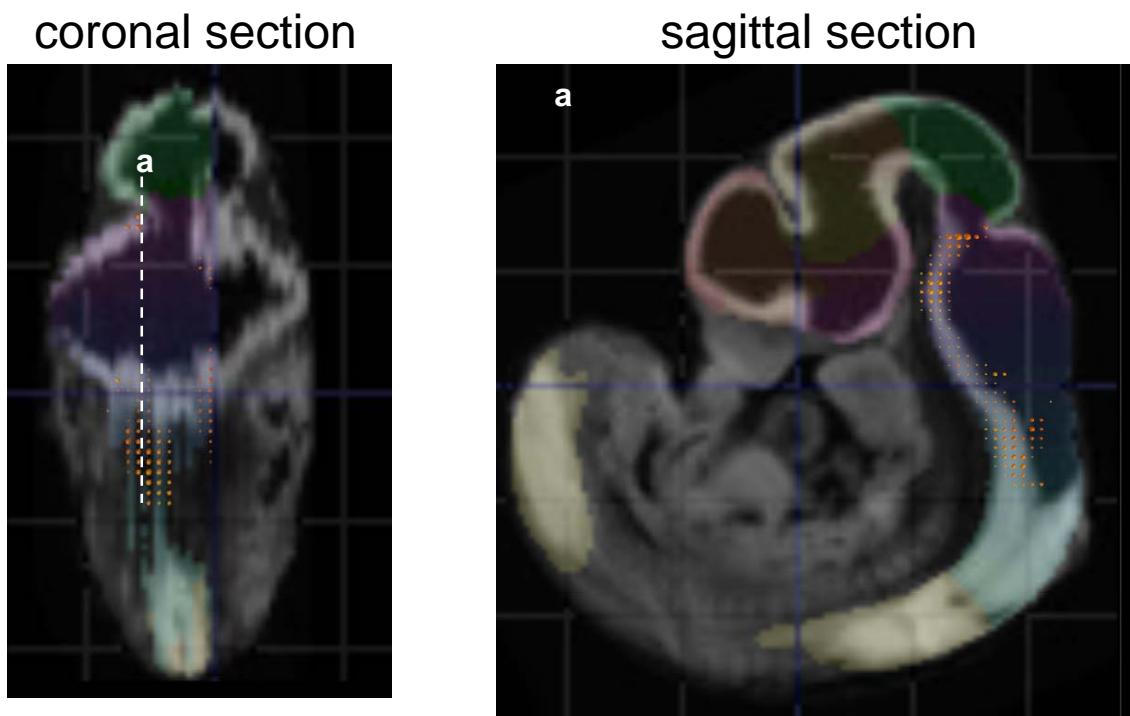
rhombomere 6-8



## WNT-subgroup gene: *Gad1*, glutamic acid decarboxylase (*in situ*)

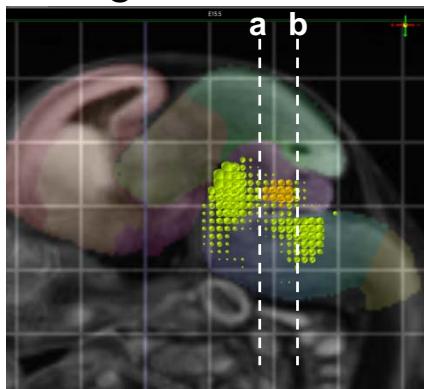


## WNT-subgroup gene: *Gad1*, glutamic acid decarboxylase (E11.5)

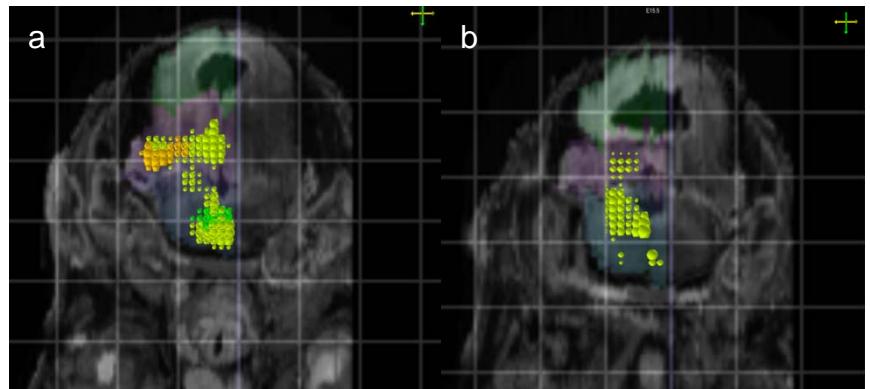


WNT-subgroup gene: *Gad1*, glutamic acid decarboxylase (E15.5)

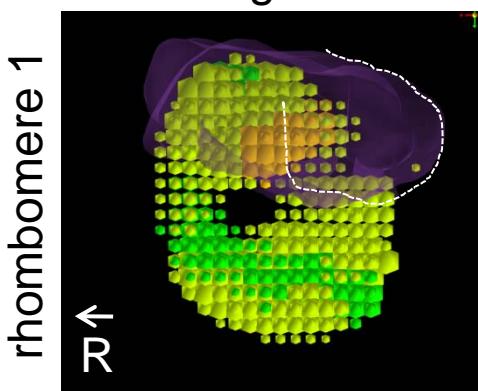
## sagittal section



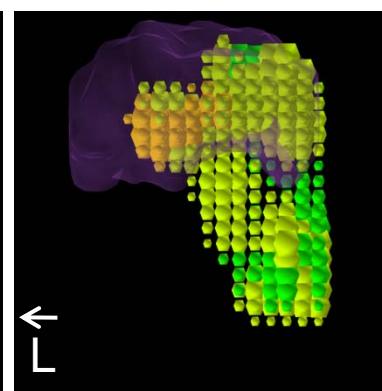
## coronal sections



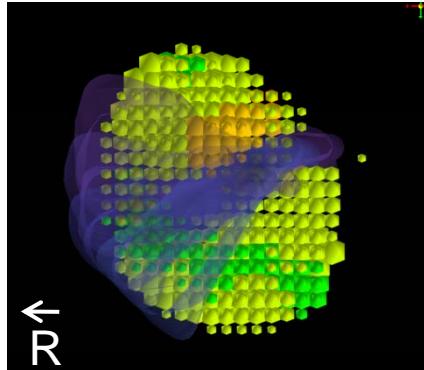
sagittal



## coronal

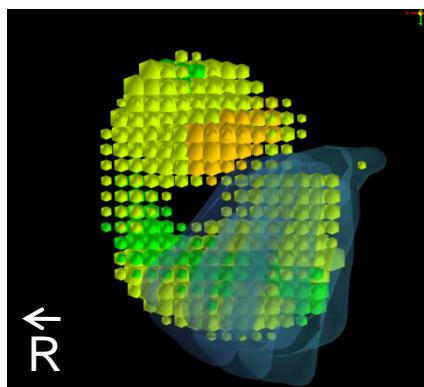


rhombomere 2-5



This figure displays a 3D reconstruction of a brain region, likely the hippocampus, with two distinct maps overlaid. The top map, colored in shades of yellow and green, represents cortical thickness, with thicker areas appearing in yellow. The bottom map, colored in shades of blue and purple, represents surface area, with larger surfaces appearing in blue. A small white arrow in the bottom left corner indicates the anterior-posterior axis.

rhombomere 6-8

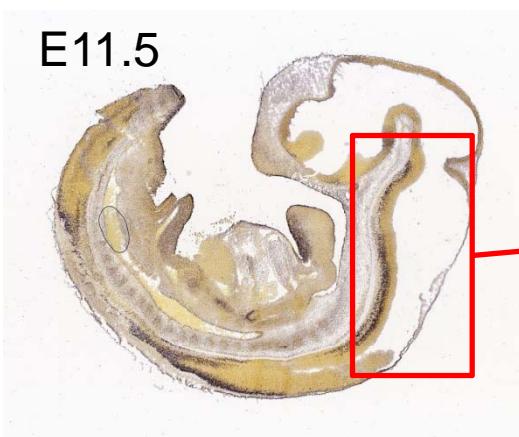


expression  
intensity

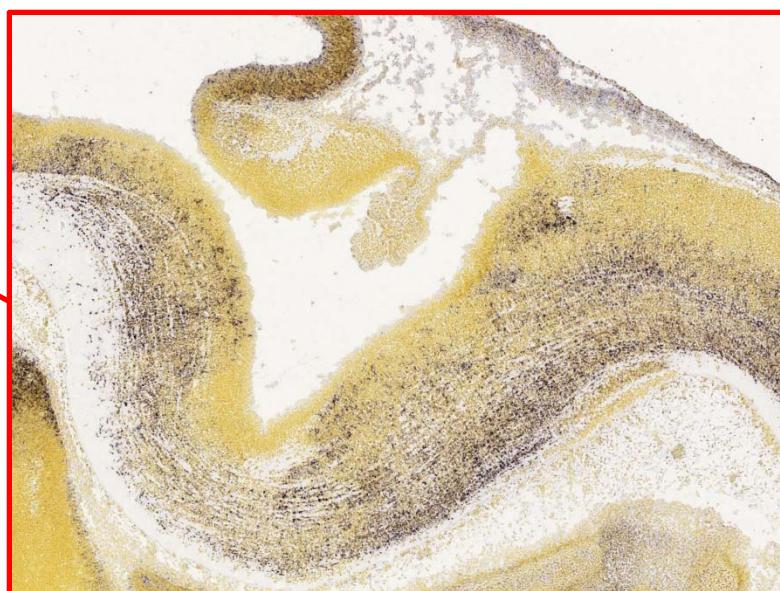
A horizontal color bar showing a gradient from dark blue on the left to red on the right. Below the bar, the value "0" is positioned to the left of the blue end, and the value "270" is positioned to the right of the red end.

## WNT-subgroup gene: *Atbf1*, AT motif binding factor 1 (*in situ*)

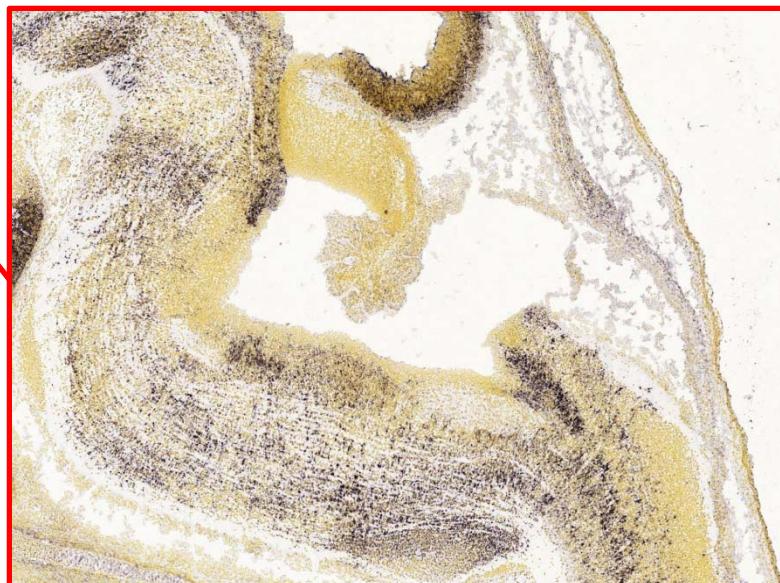
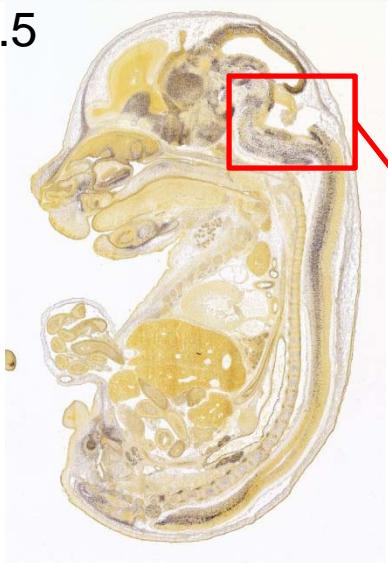
E11.5



E13.5

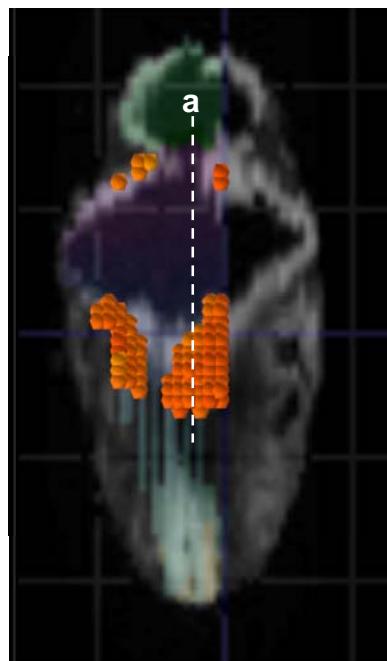


E15.5

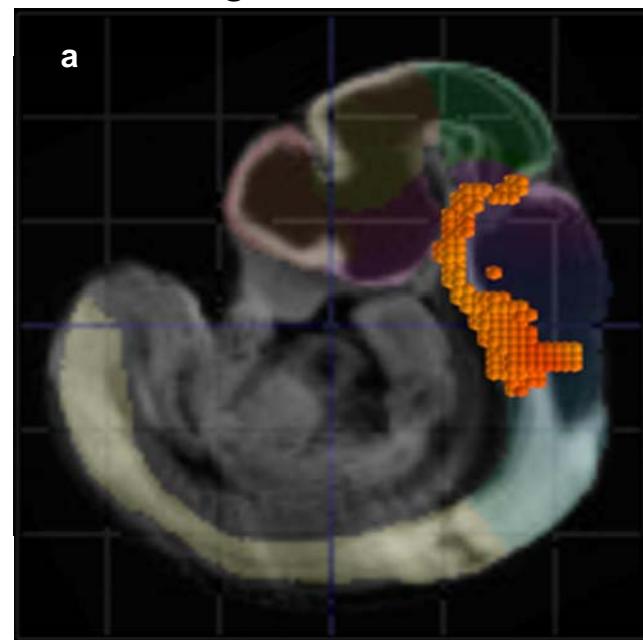


## WNT-subgroup gene: *Atbf1*, AT motif binding factor 1 (E11.5)

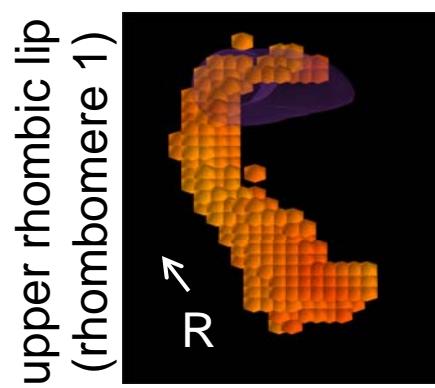
coronal section



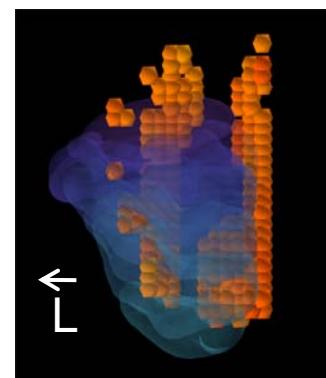
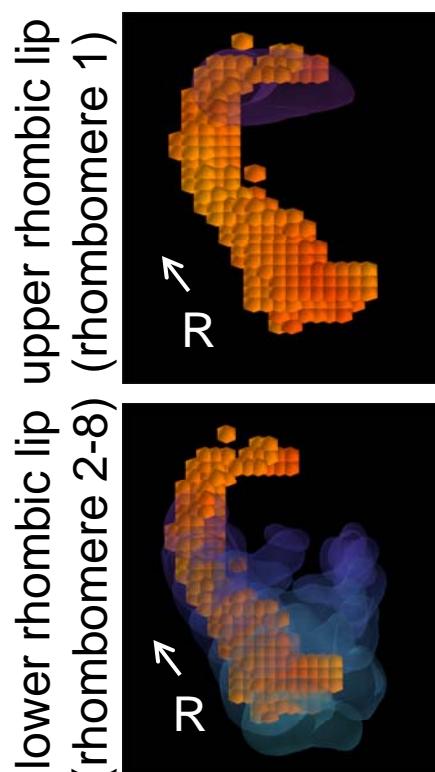
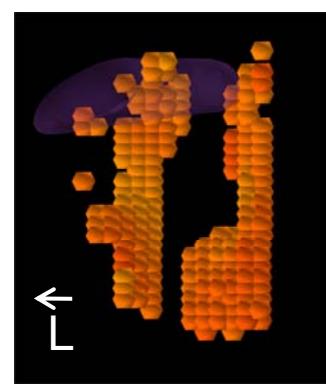
sagittal section



sagittal



coronal

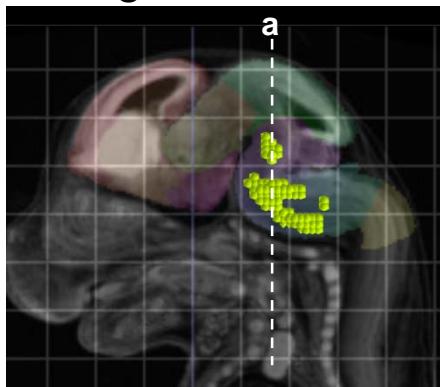


expression  
intensity

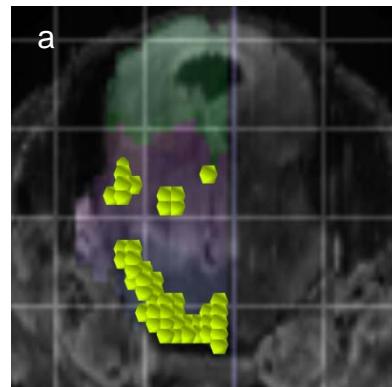


## WNT-subgroup gene: *Atbf1*, AT motif binding factor 1 (E15.5)

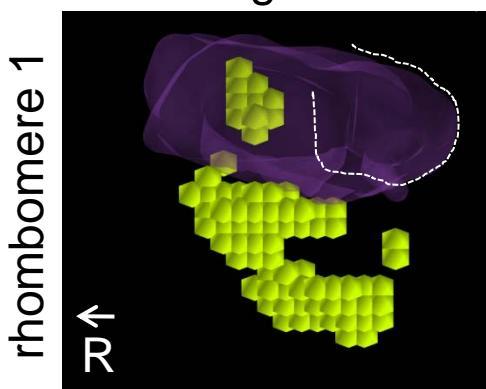
sagittal section



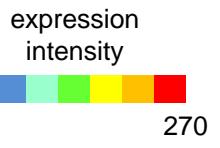
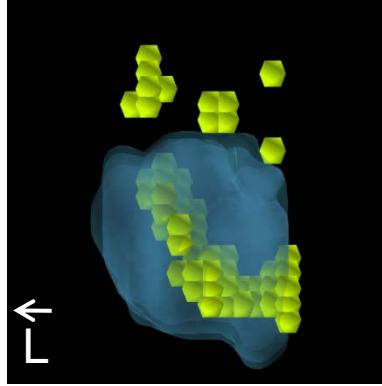
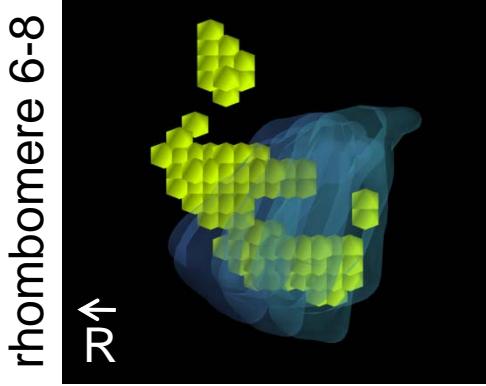
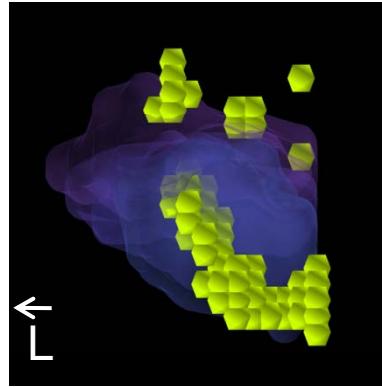
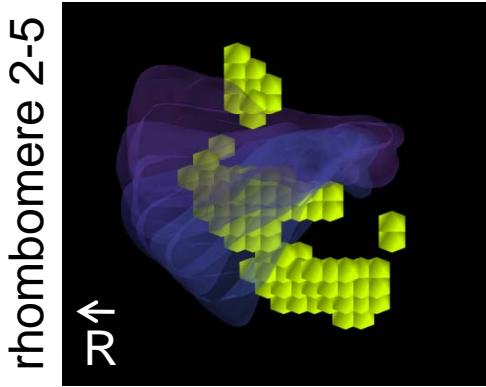
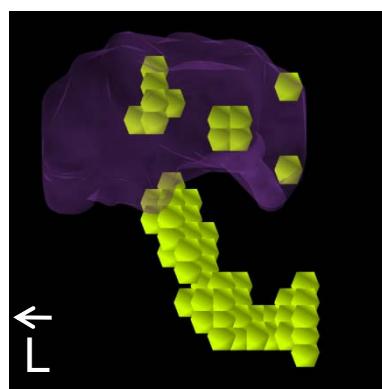
coronal section



sagittal



coronal

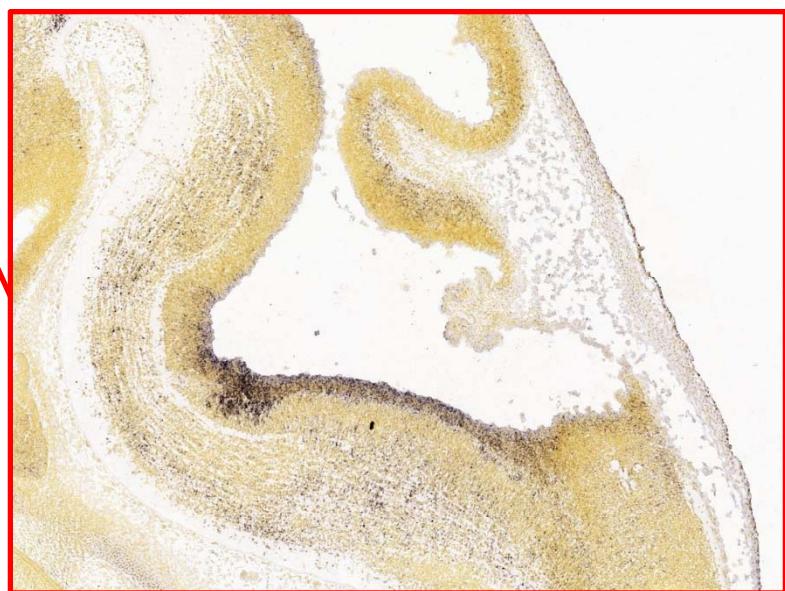


## WNT-subgroup gene: *Lrrn3*, Leucine rich repeat protein 3 (*in situ*)

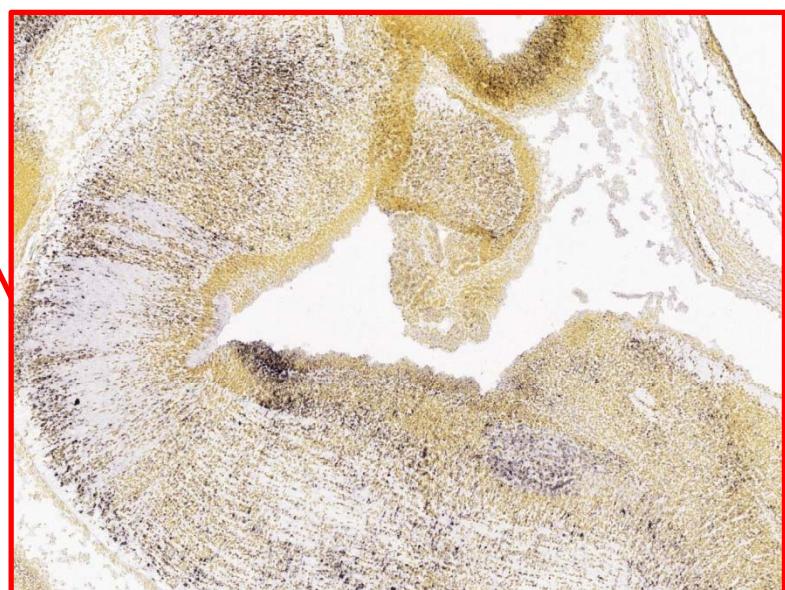
E11.5



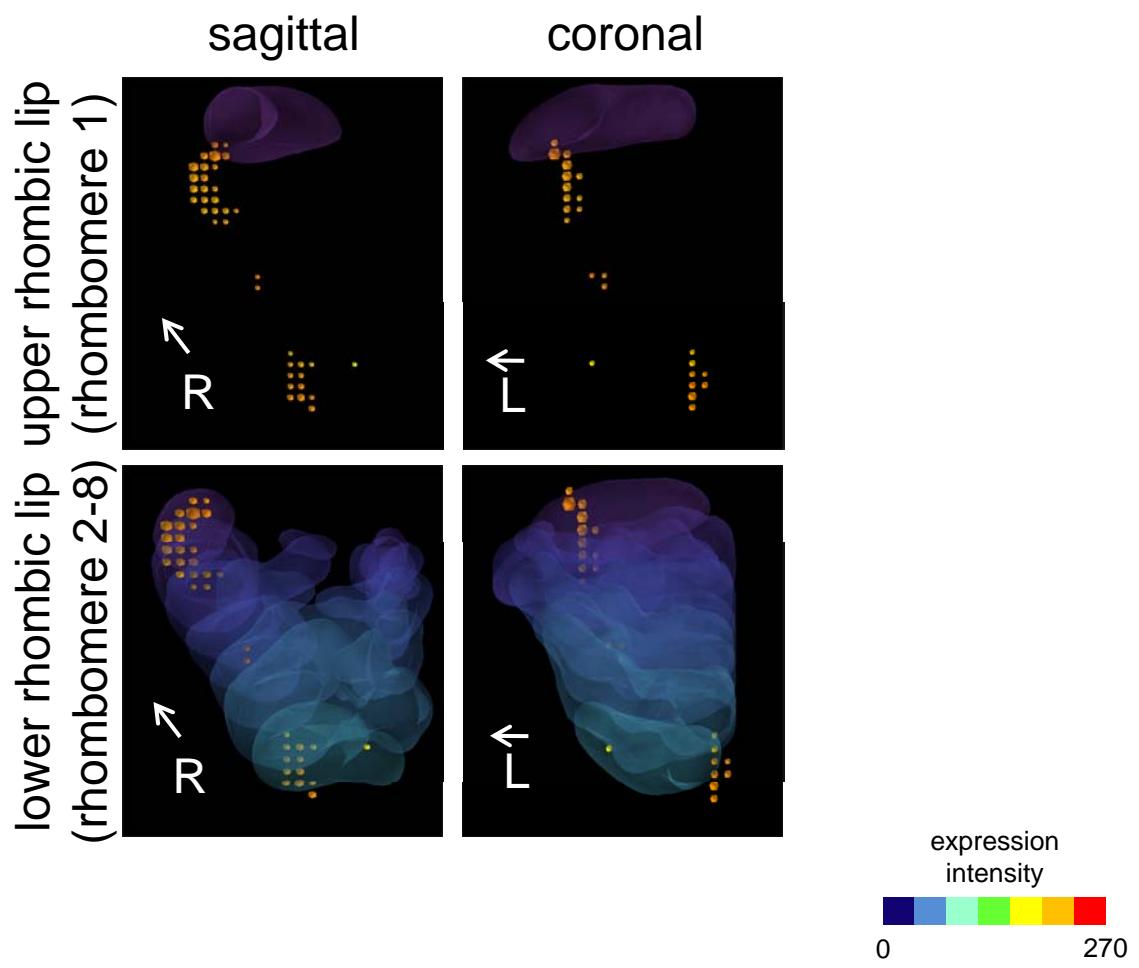
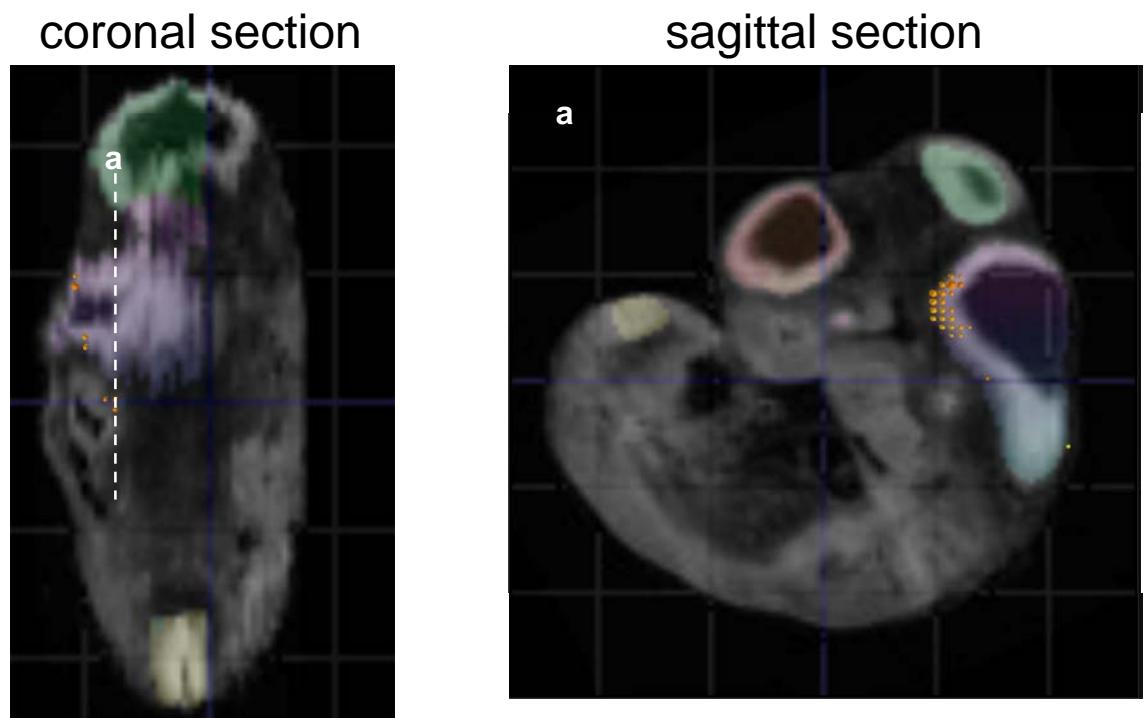
E13.5



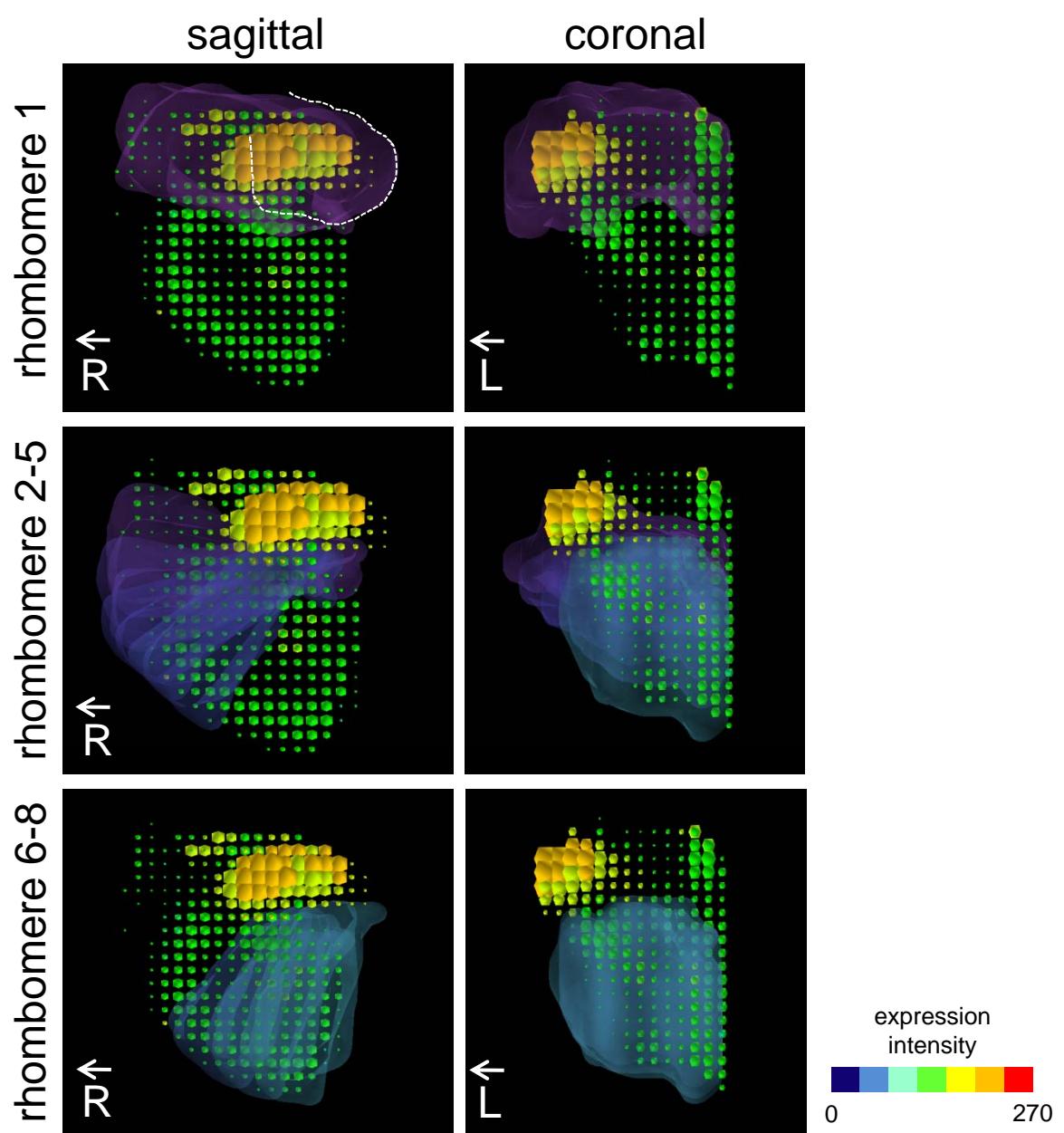
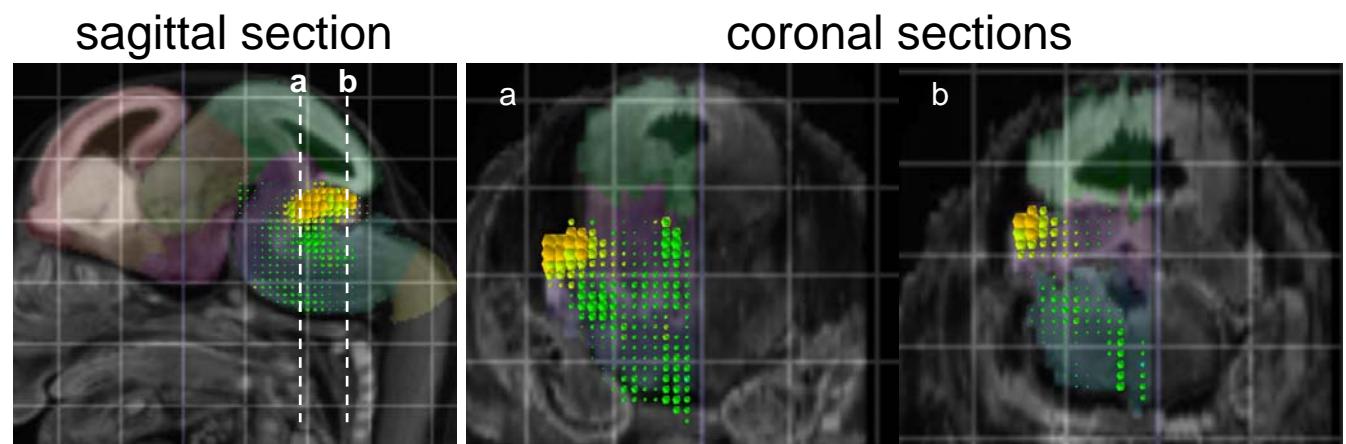
E15.5



WNT-subgroup gene: *Lrrn3*, Leucine rich repeat protein 3 (E11.5)



## WNT-subgroup gene: *Lrrn*, Leucine rich repeat protein 3 (E15.5)

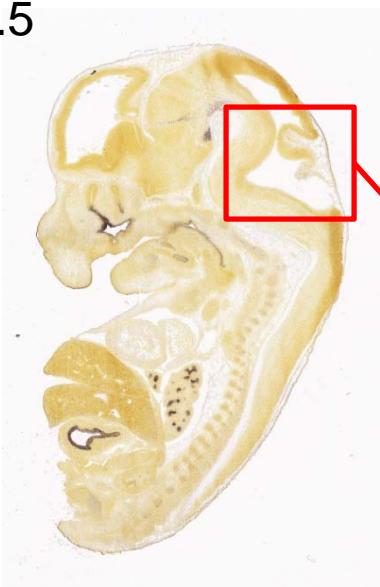


## WNT-subgroup gene: *Foxa1*, Forkhead box A1 (*in situ*)

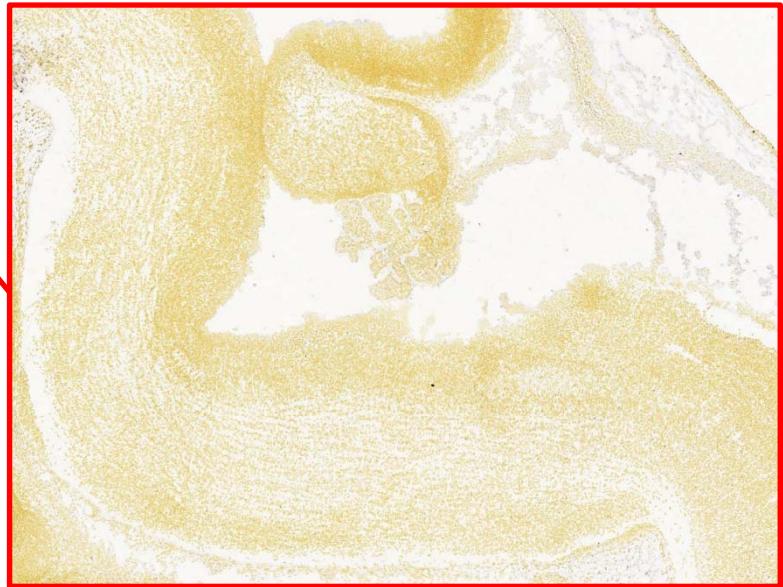
E11.5



E13.5

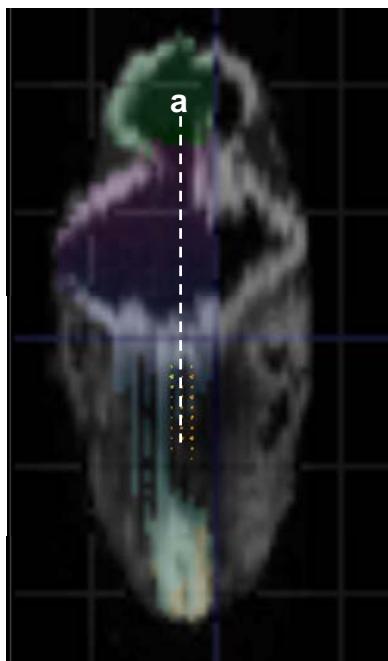


E15.5

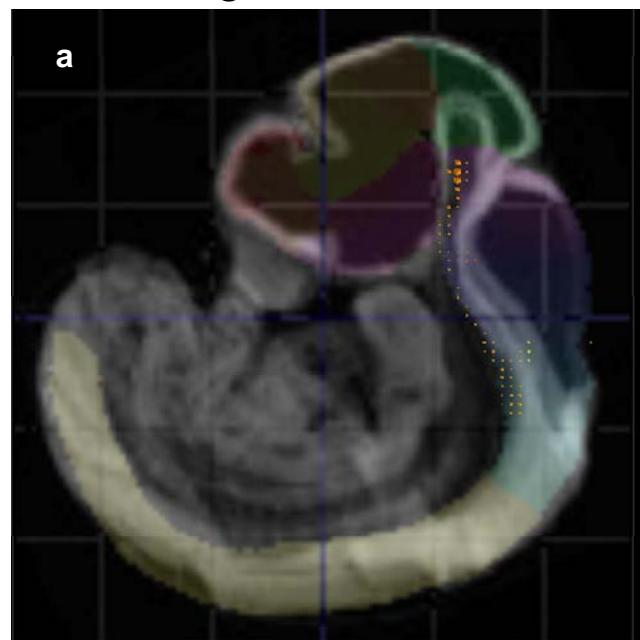


## WNT-subgroup gene: *Foxa1*, Forkhead box A1 (E11.5)

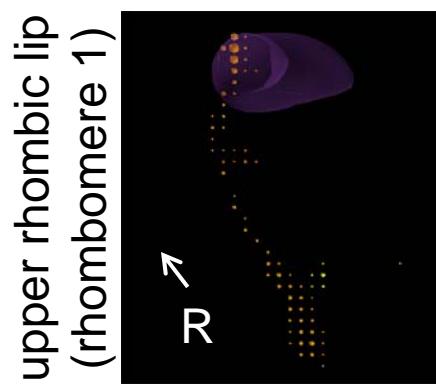
coronal section



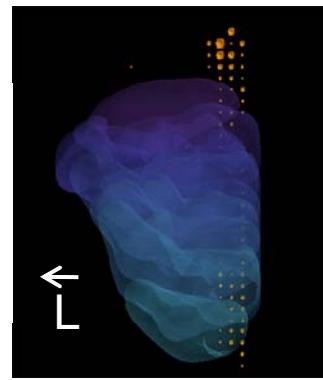
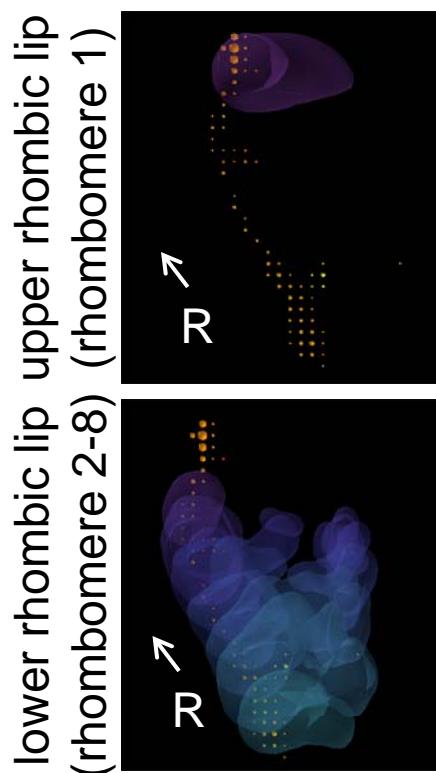
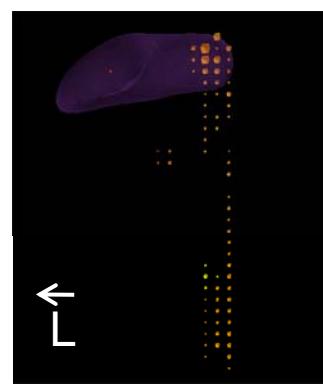
sagittal section



sagittal



coronal

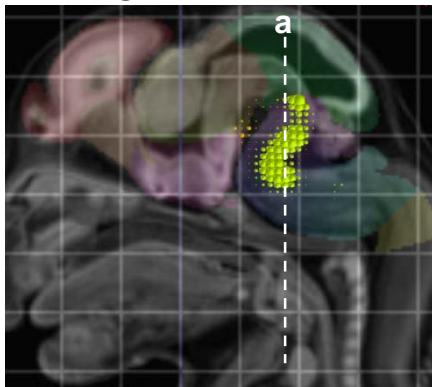


expression intensity

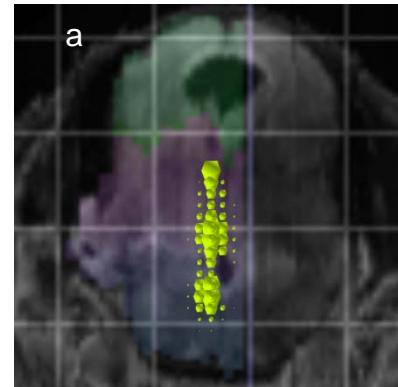


## WNT-subgroup gene: *Foxa1*, Forkhead box A1 (E15.5)

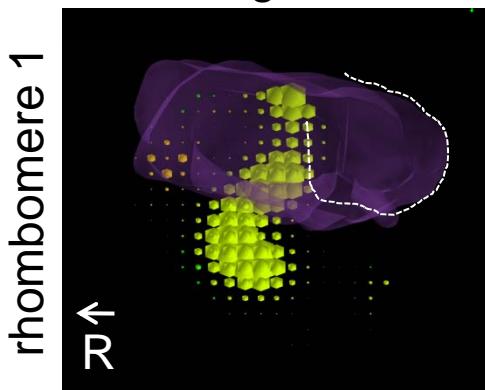
sagittal section



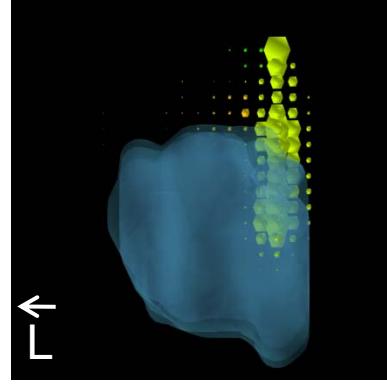
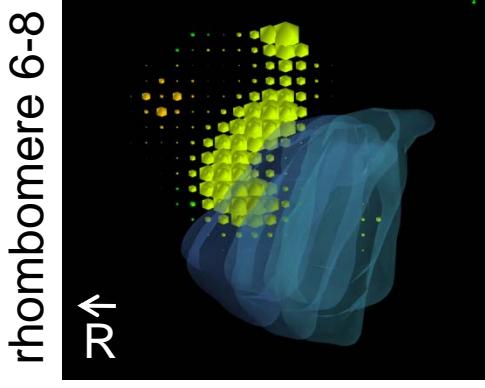
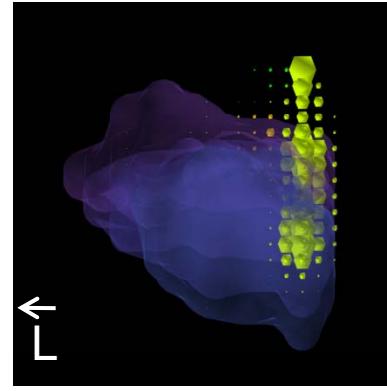
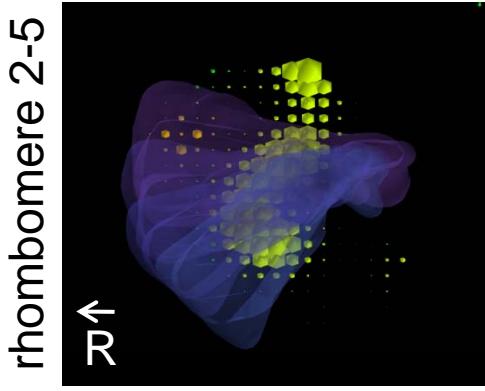
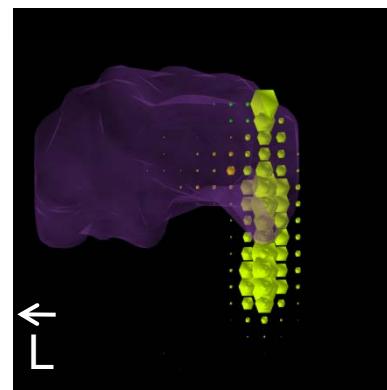
coronal section



sagittal



coronal

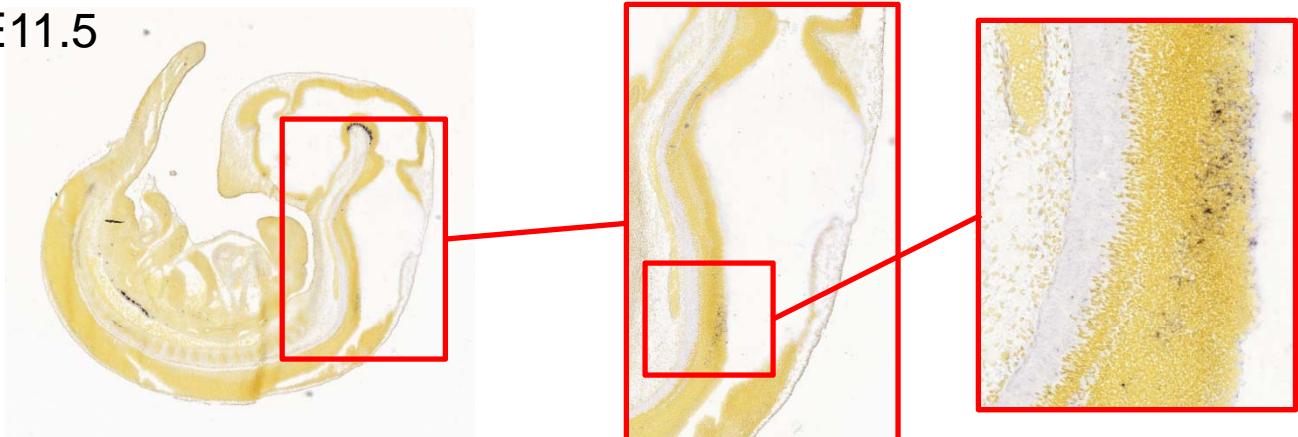


expression  
intensity

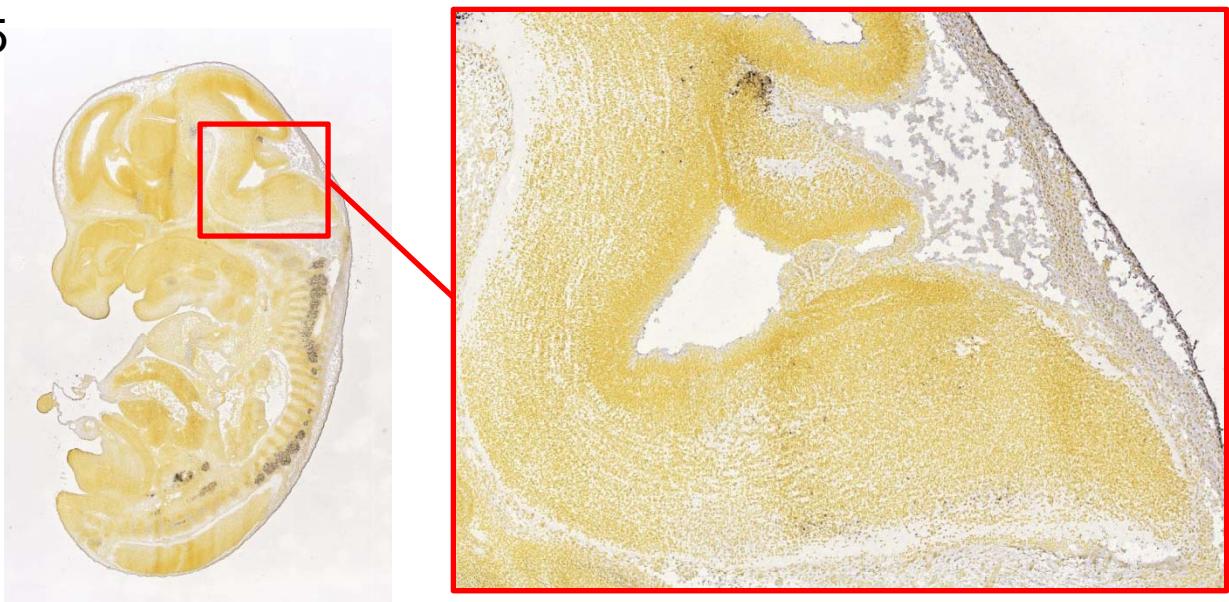


## WNT-subgroup gene: *Th*, Tyrosine hydroxylase (in situ)

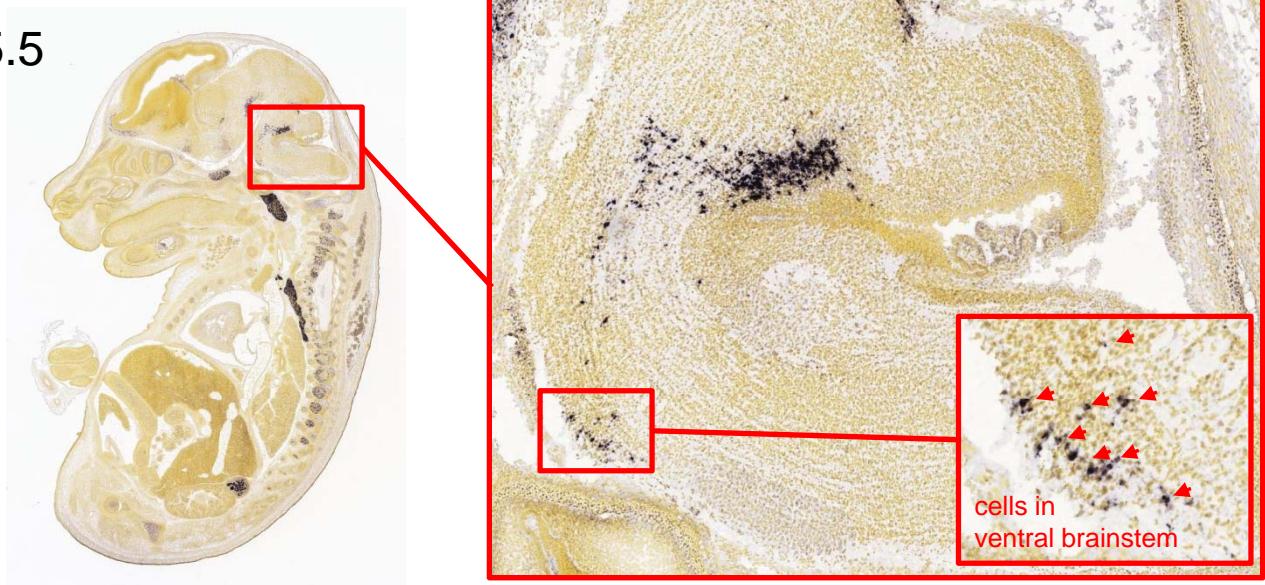
E11.5



E13.5

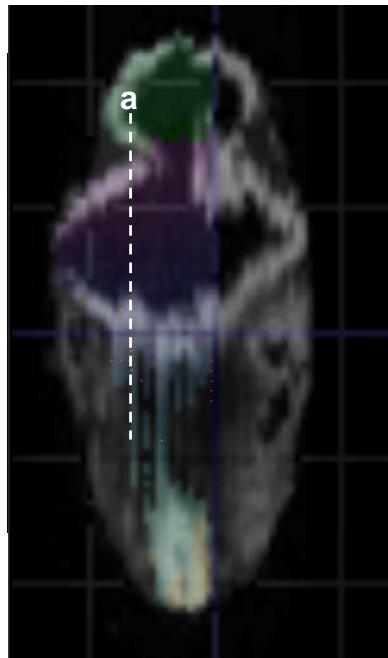


E15.5

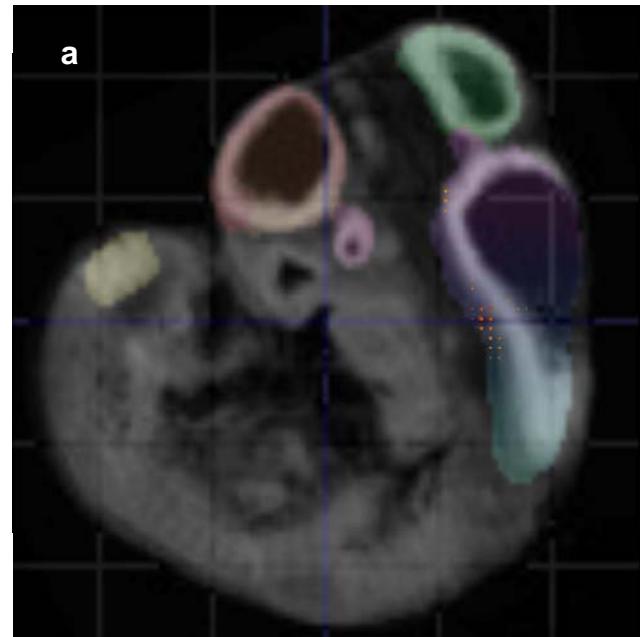


WNT-subgroup gene: *Th*, Tyrosine hydroxylase (E11.5)

## coronal section



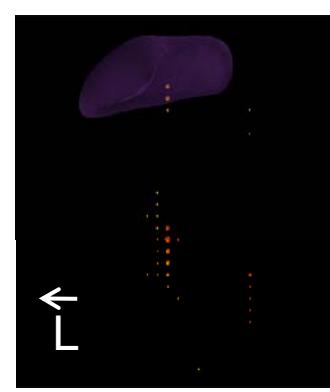
## sagittal section



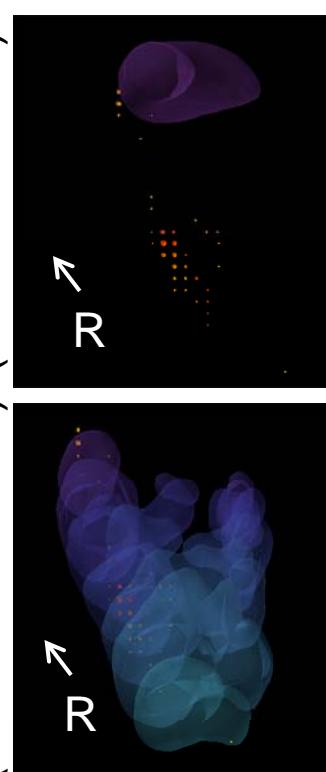
## sagittal



## coronal



lower rhombic lip upper rhombic lip  
(rhombomere 2-8) (rhombomere 1)



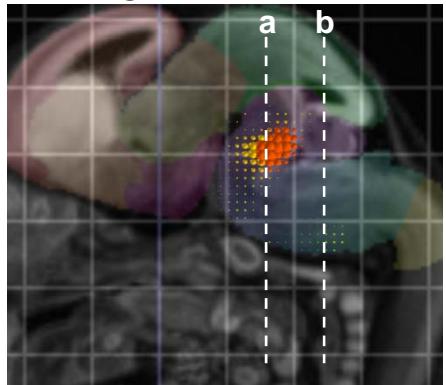
A 3D rendering of a brain scan, likely from an MRI or CT machine. The image shows a large, irregularly shaped mass within the brain's ventricles, appearing in shades of purple and blue against a black background. A small white arrow points to the left side of the image.

expression  
intensity

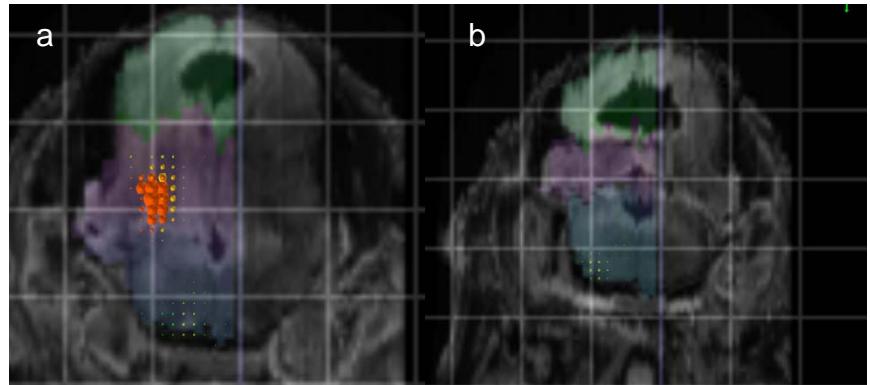
0 270

## WNT-subgroup gene: *Th*, Tyrosine hydroxylase (E15.5)

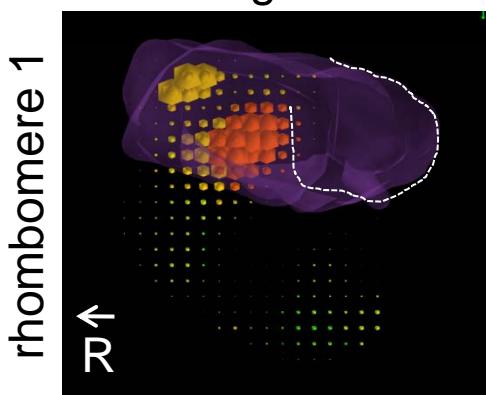
sagittal section



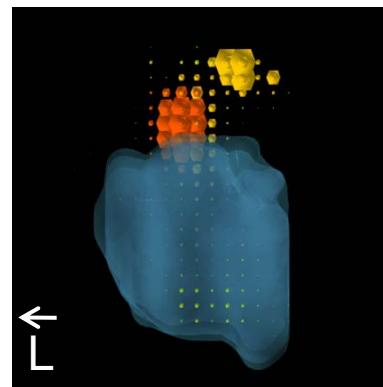
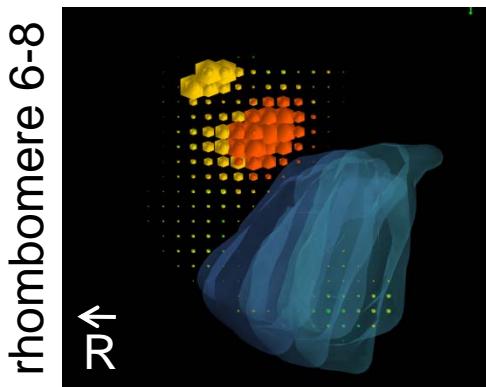
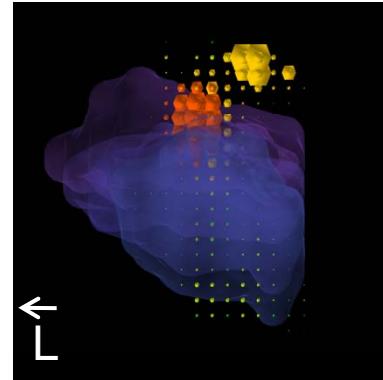
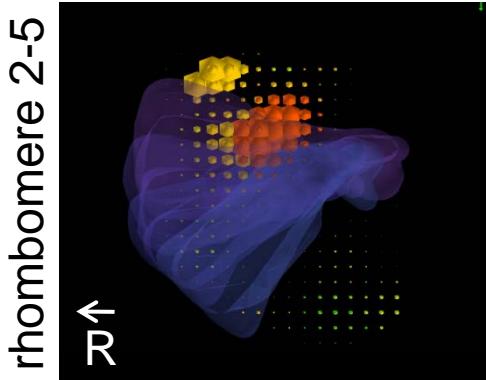
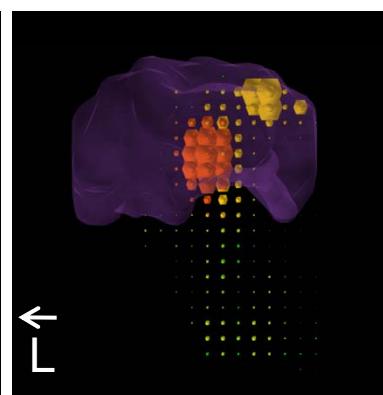
coronal sections



sagittal



coronal

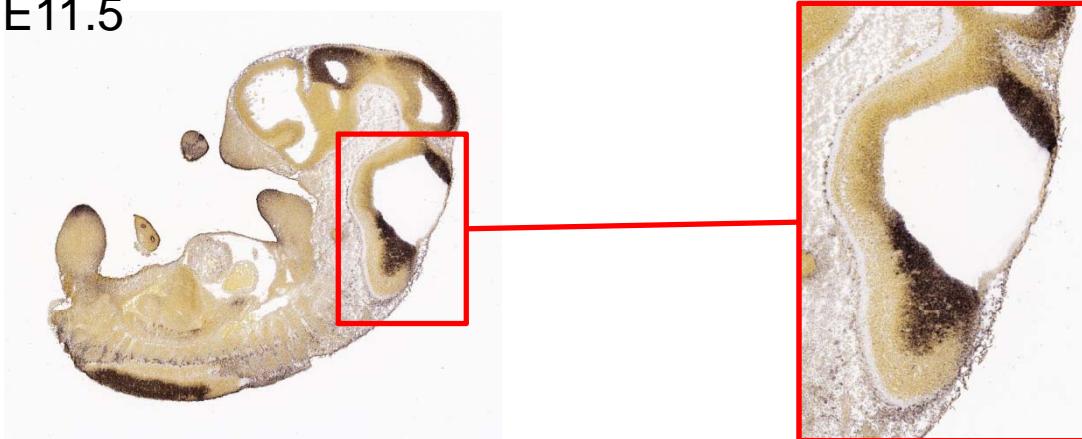


expression  
intensity



## WNT-subgroup gene: *Fzd10*, Frizzled homolog 10 (*in situ*)

E11.5



E13.5

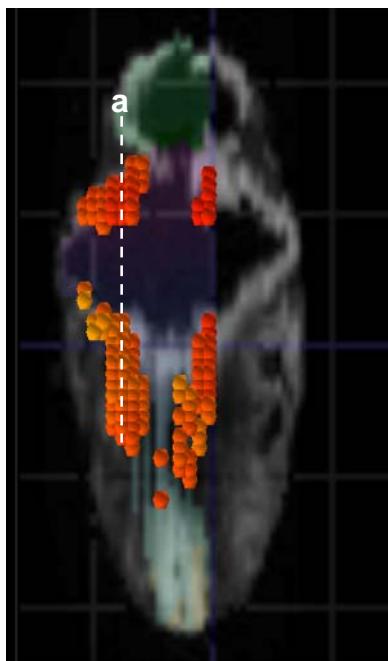


E15.5

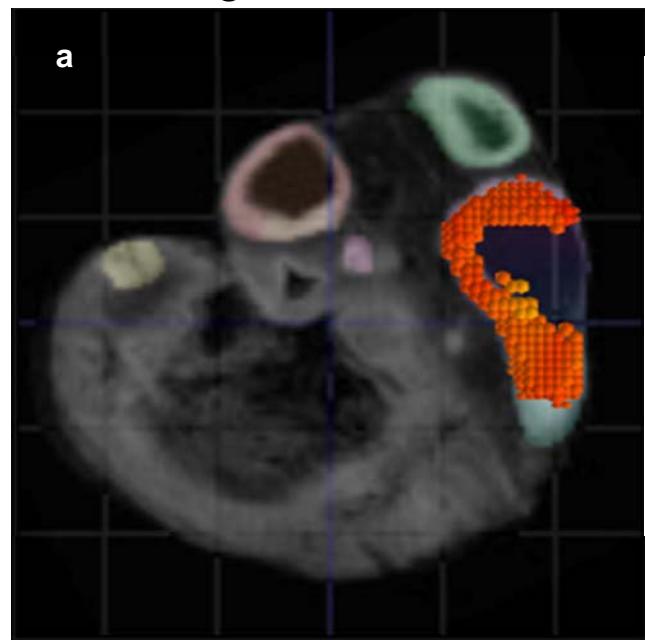


## WNT-subgroup gene: *Fzd10*, Frizzled homolog 10 (E11.5)

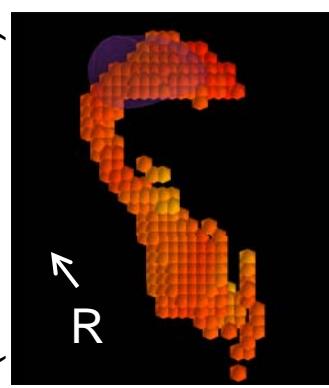
coronal section



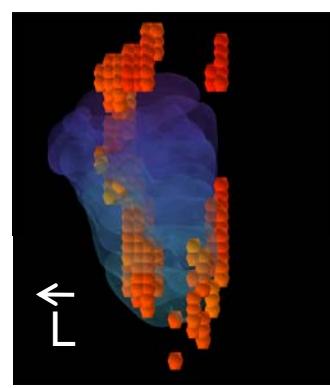
sagittal section



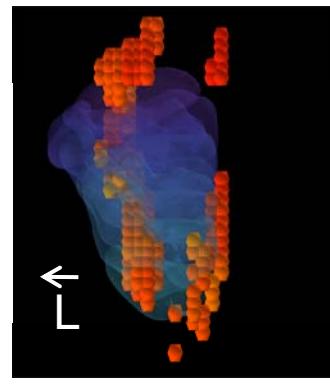
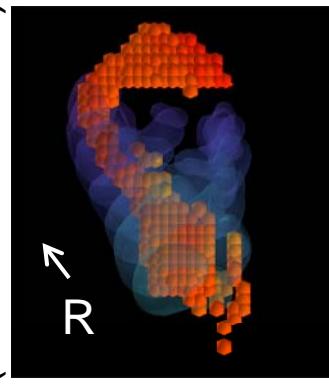
sagittal



coronal



lower rhombic lip upper rhombic lip  
(rhombomere 2-8) (rhombomere 1)

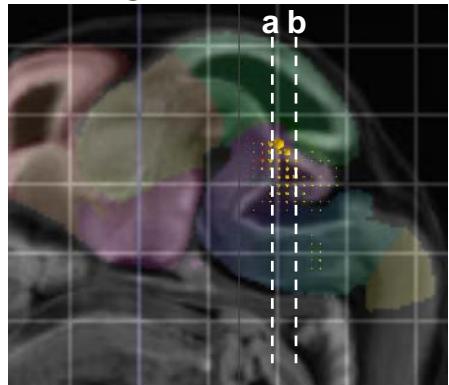


expression  
intensity

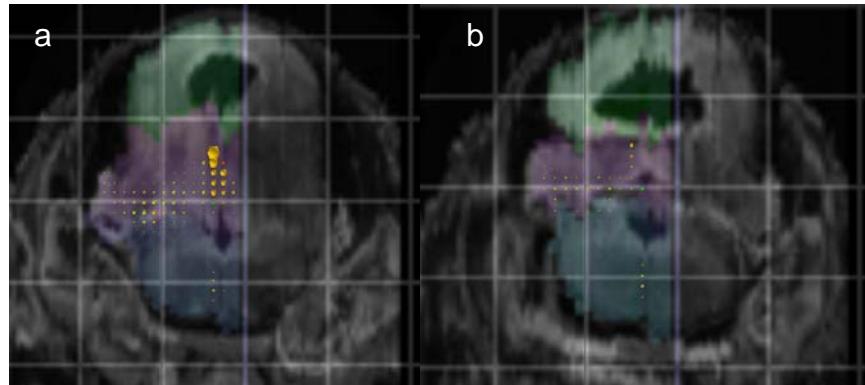


WNT-subgroup gene: *Fzd10*, Frizzled homolog 10 (E15.5)

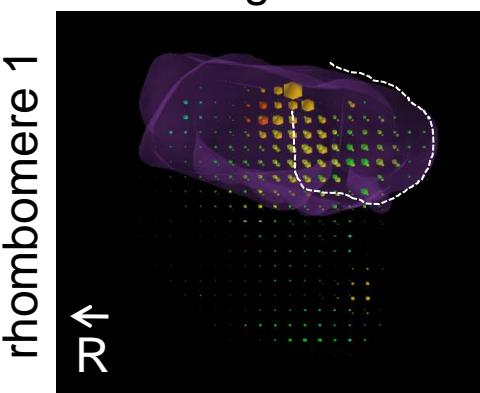
# sagittal section



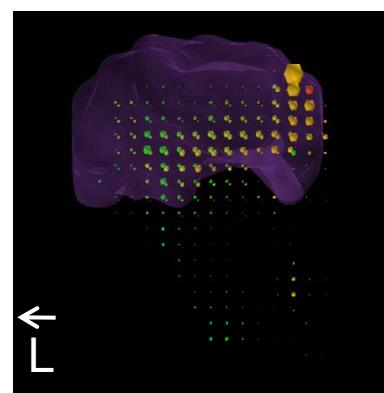
## coronal sections



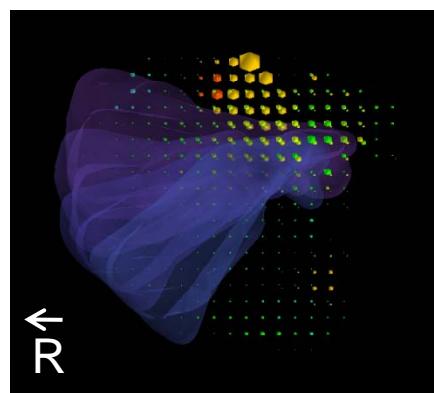
## sagittal



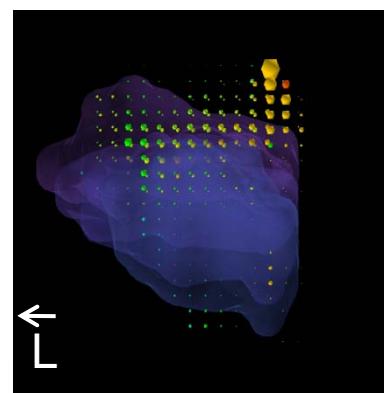
## coronal



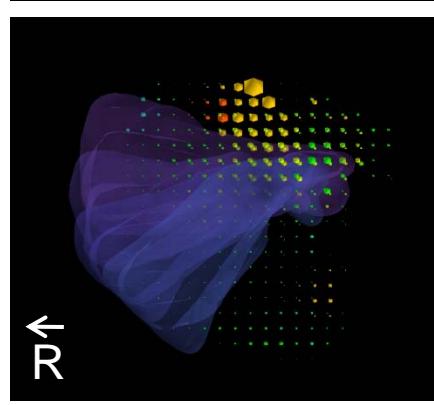
rhombomere 1



rhombomere 2-5



rhombomere 6-8

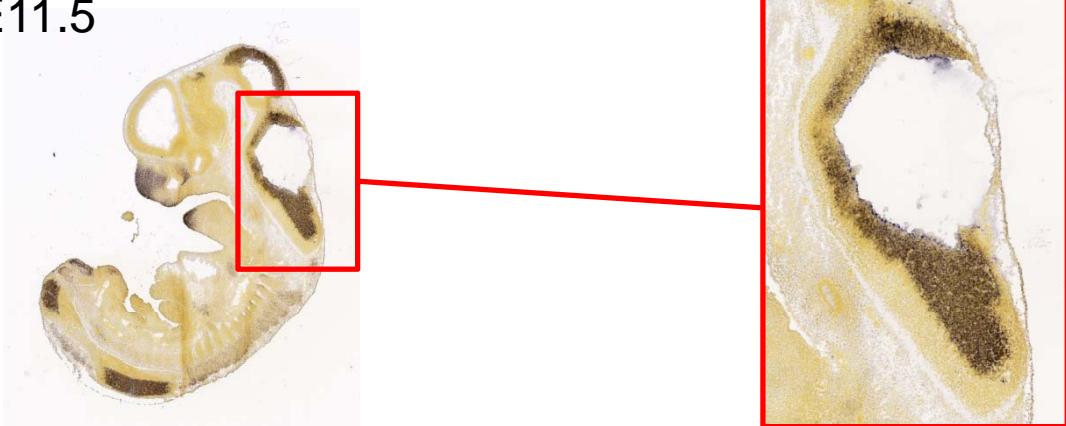


expression  
intensity

A horizontal color bar consisting of seven colored squares: dark blue, light blue, cyan, green, yellow, orange, and red. Below the bar, the value "0" is positioned under the first square, and the value "270" is positioned under the last square.

## WNT-subgroup gene: *Pax3*, Paired box 3 (*in situ*)

E11.5



E13.5

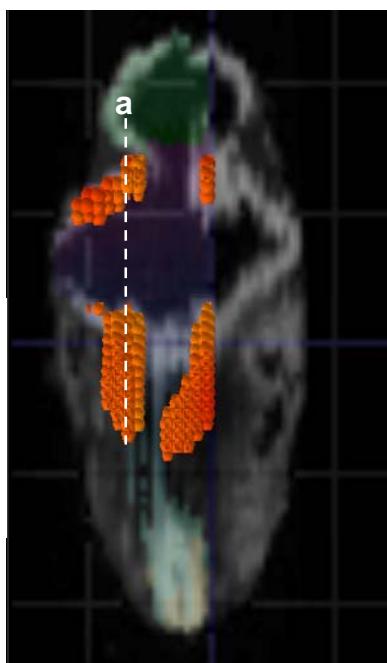


E15.5

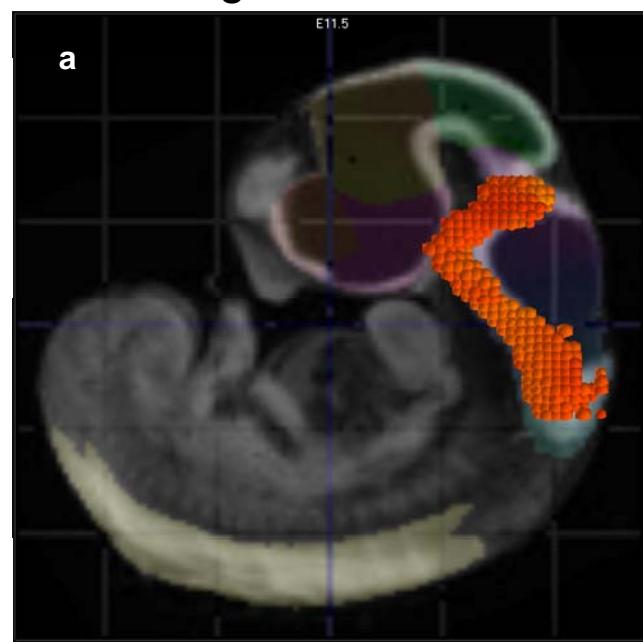


## WNT-subgroup gene: *Pax3*, Paired box 3 (E11.5)

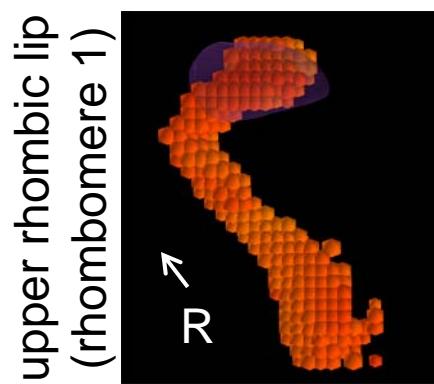
coronal section



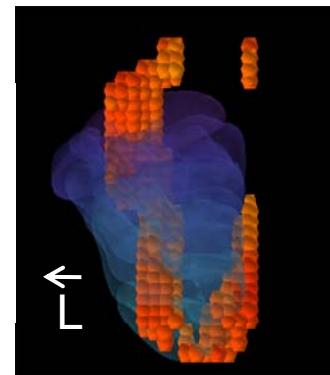
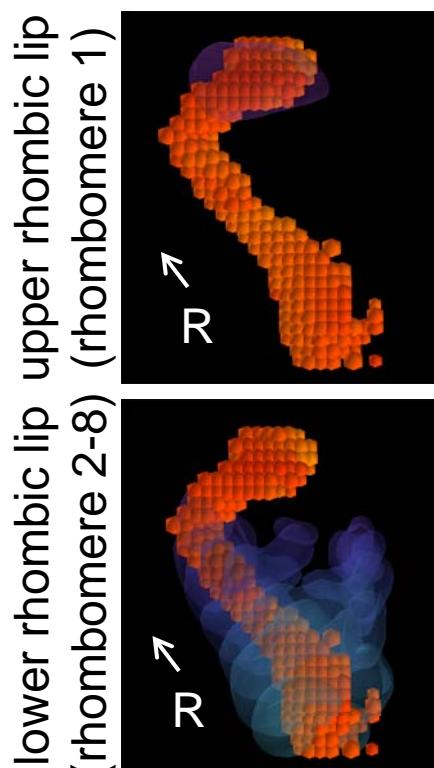
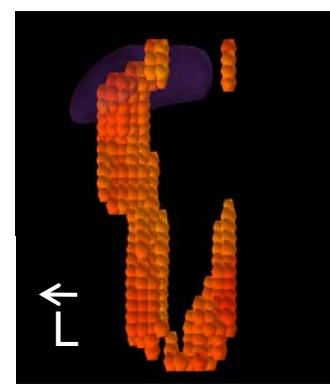
sagittal section



sagittal



coronal



expression intensity

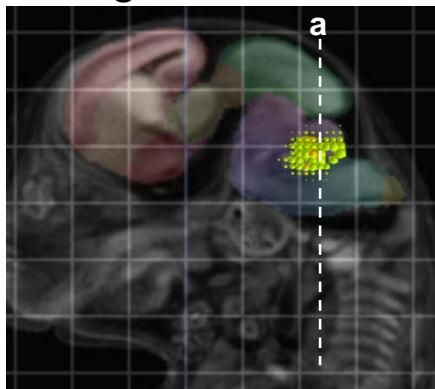


0

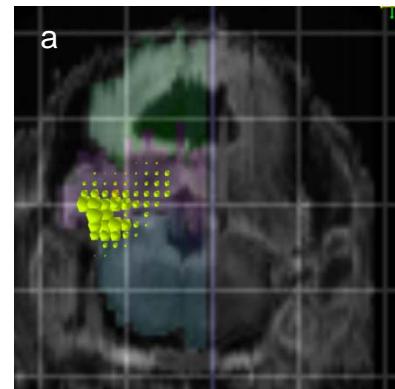
270

## WNT-subgroup gene: *Pax3*, Paired box 3 (E15.5)

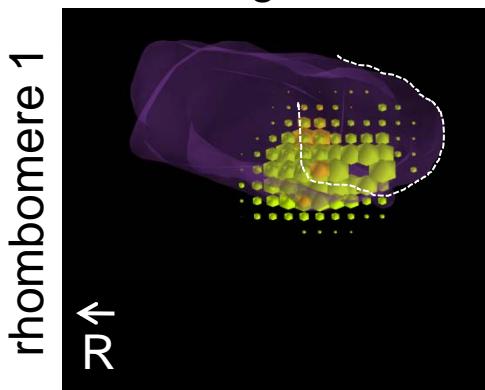
sagittal section



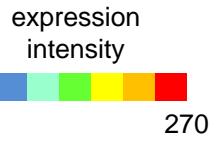
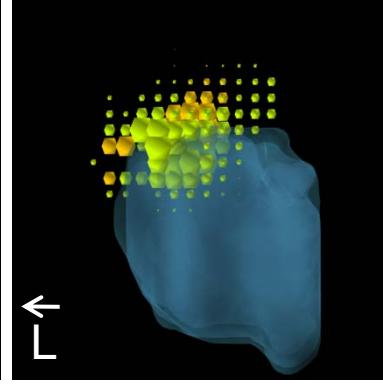
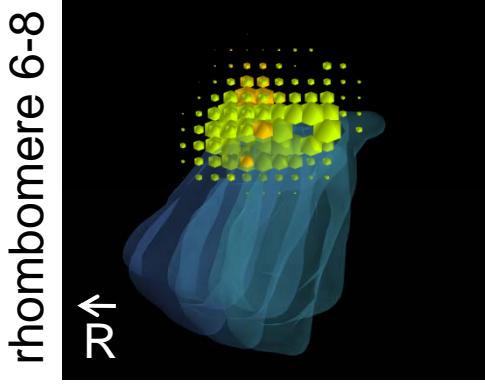
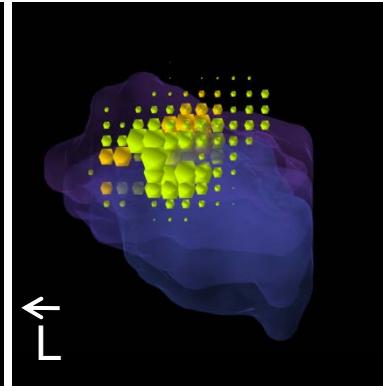
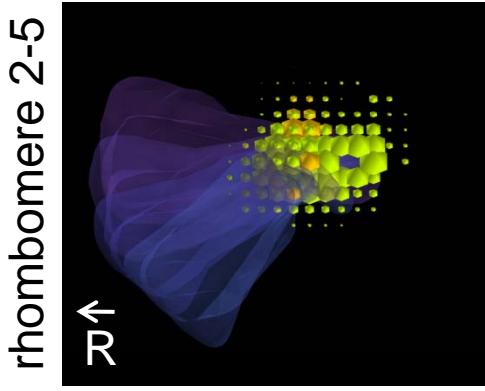
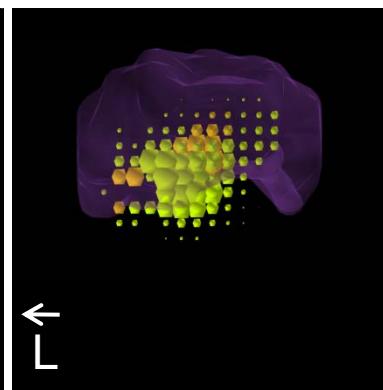
coronal section



sagittal

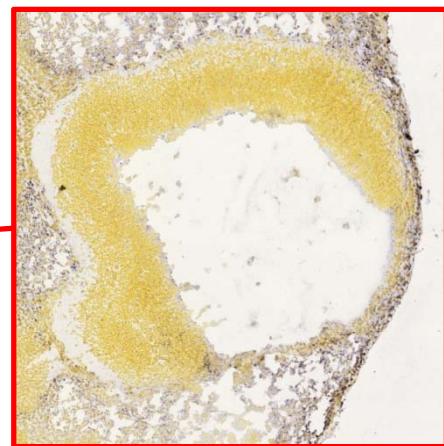


coronal

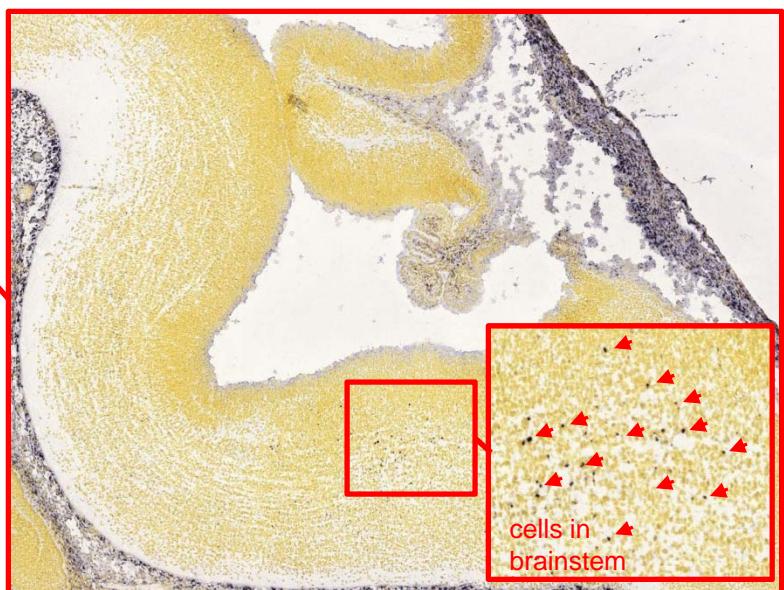


## WNT-subgroup gene: *Col5a1*, Procollagen Va1 (*in situ*)

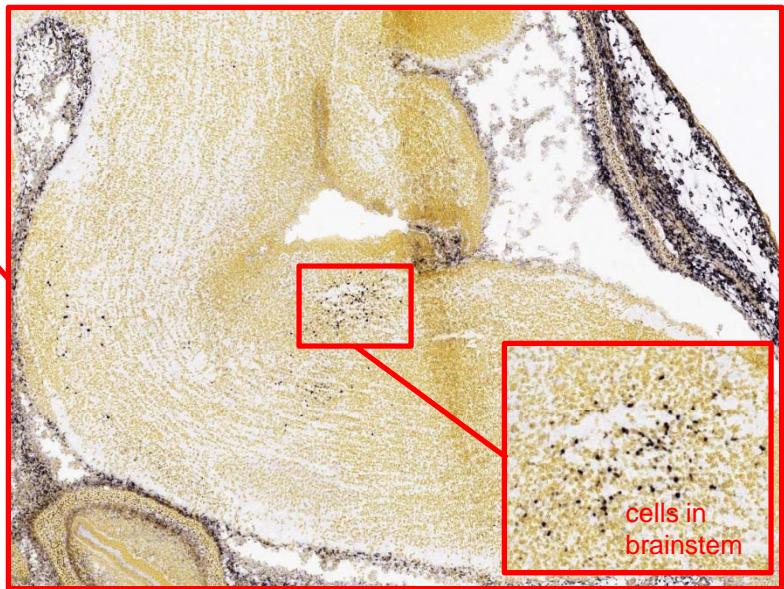
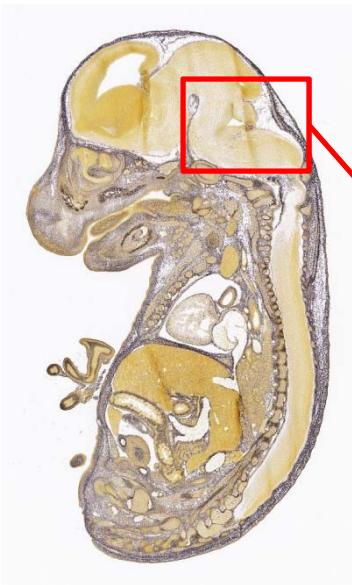
E11.5



E13.5

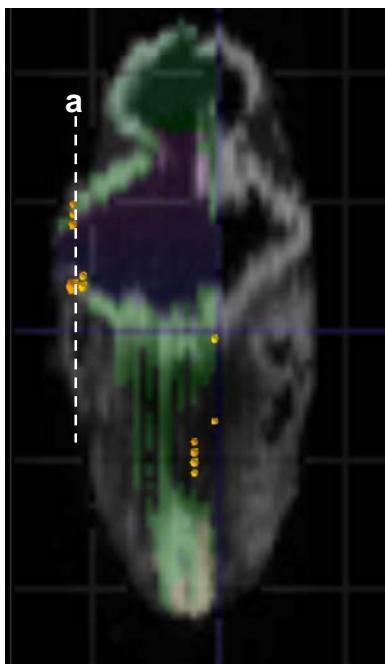


E15.5

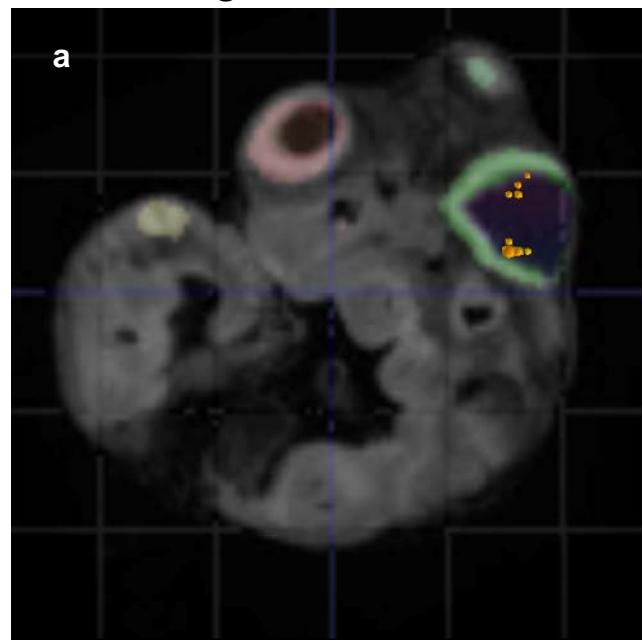


## WNT-subgroup gene: *Col5a1*, Procollagen Va1 (E11.5)

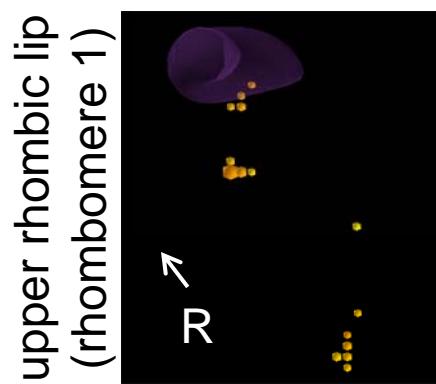
coronal section



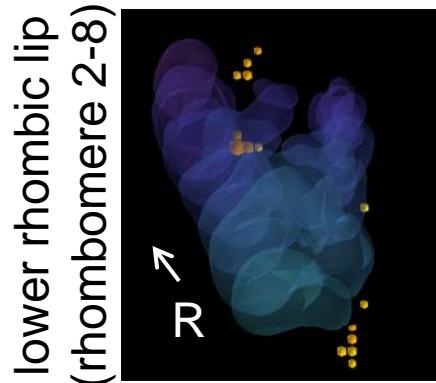
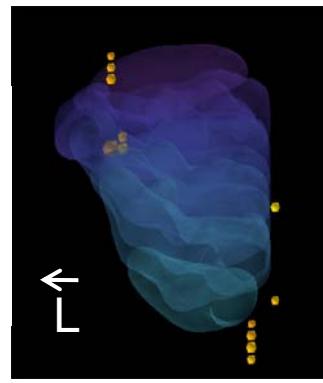
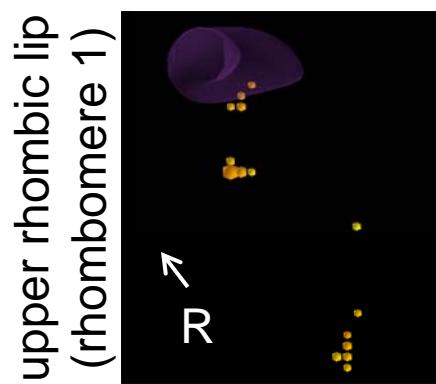
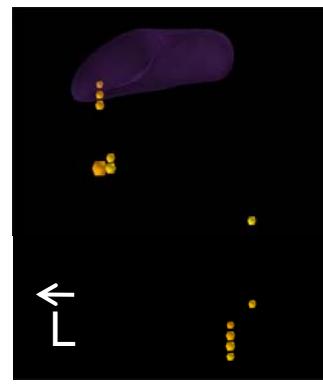
sagittal section



sagittal

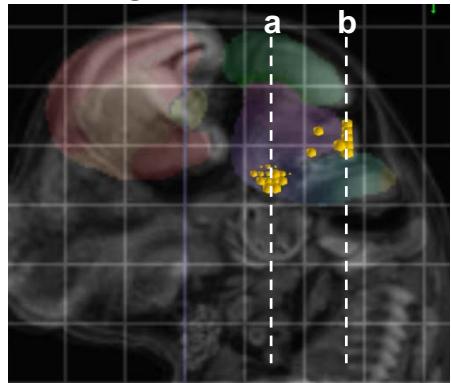


coronal

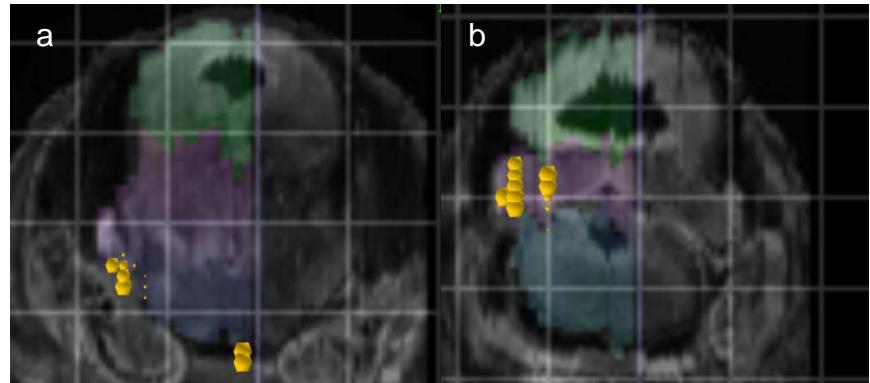


WNT-subgroup gene: *Col5a1*, Procollagen Va1 (E15.5)

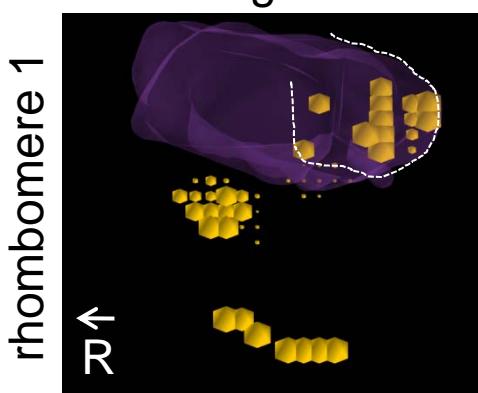
# sagittal section



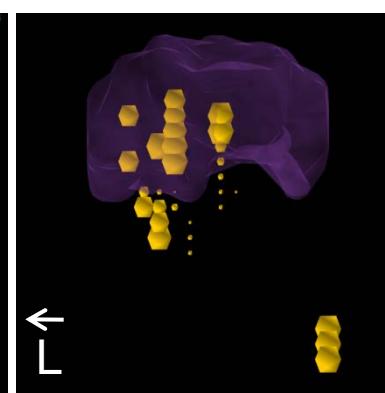
## coronal sections



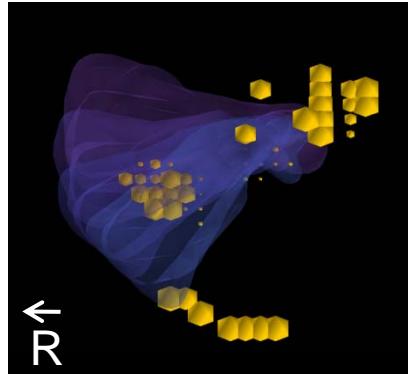
## sagittal



## coronal

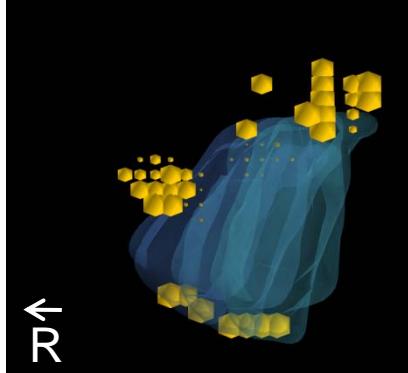


rhombomere 2-5



A 3D rendering of a human brain in a lateral view. A cluster of yellow hexagonal regions is highlighted in the left hemisphere, primarily within the frontal and parietal lobes, suggesting a region of significant change or activation. The background is dark blue.

rhomboemer 6-8



A 3D rendering of a human heart from a posterior perspective. The heart has a translucent blue surface. On the top left, there are several yellow hexagonal markers. A single yellow hexagonal marker is also located on the bottom left side of the heart.

expression  
intensity

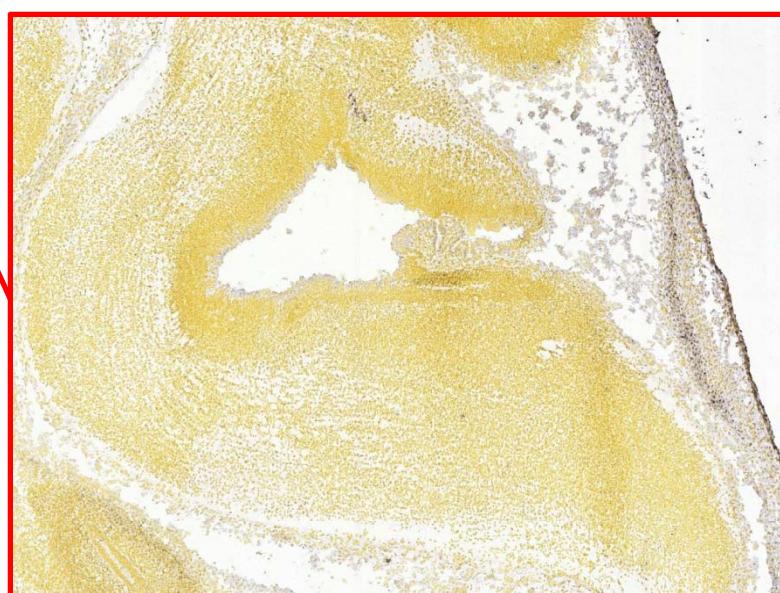
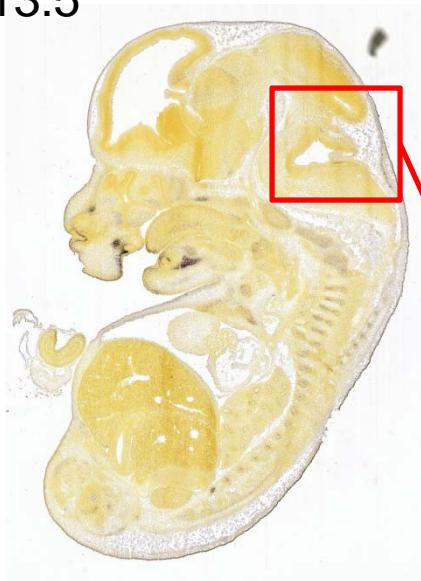


## WNT-subgroup gene: *Wif1*, Wnt inhibitory factor 1 (*in situ*)

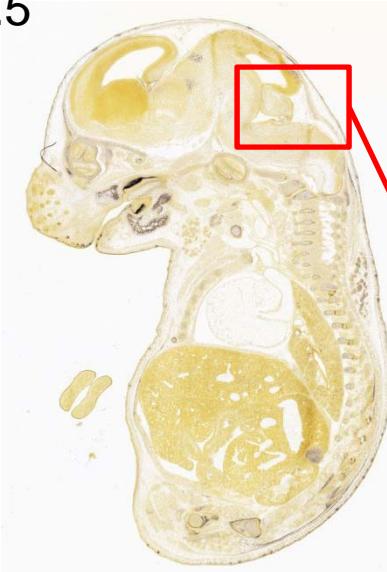
E11.5



E13.5

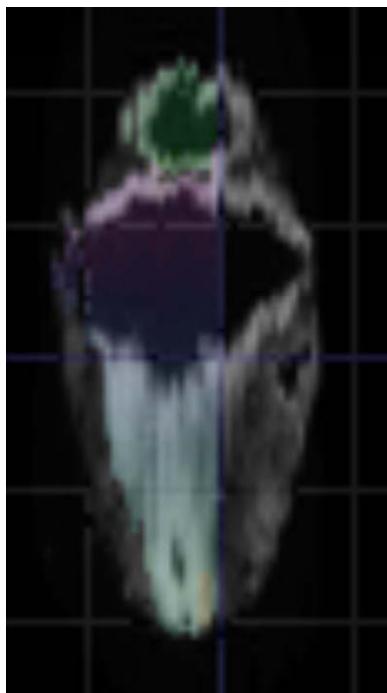


E15.5

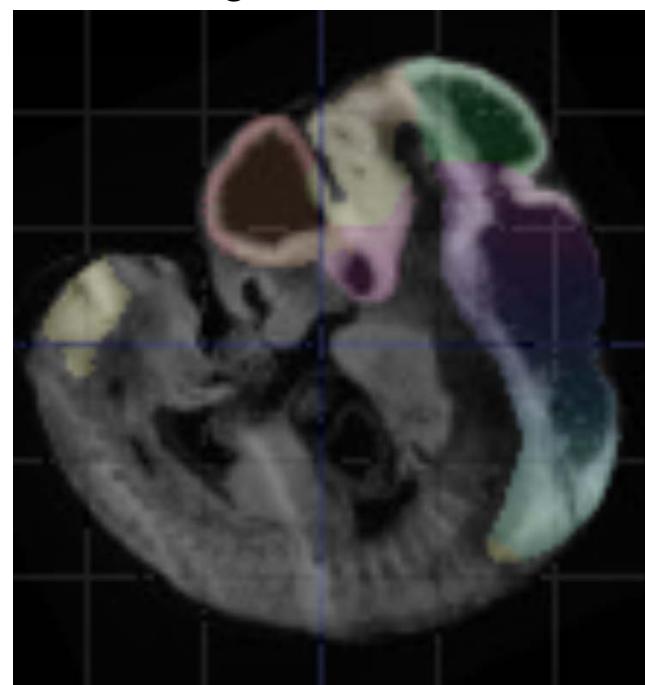


## WNT-subgroup gene: *Wif1*, Wnt inhibitory factor 1 (E11.5)

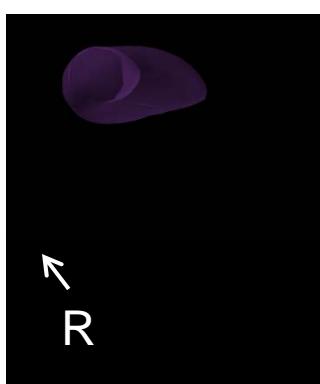
coronal section



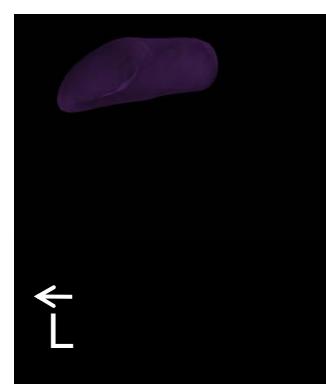
sagittal section



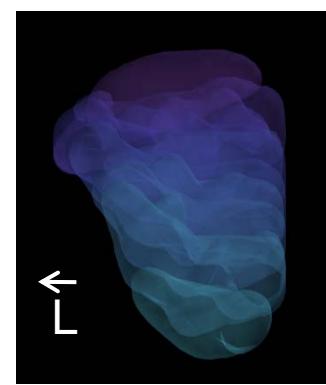
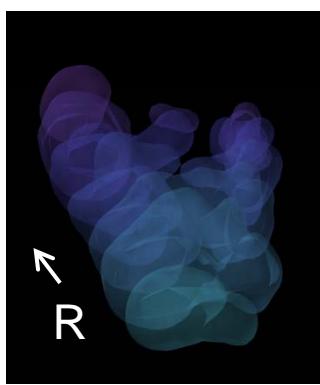
sagittal



coronal



lower rhombic lip upper rhombic lip  
(rhombomere 2-8) (rhombomere 1)

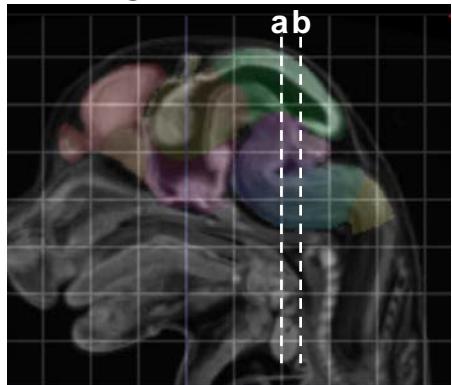


expression  
intensity

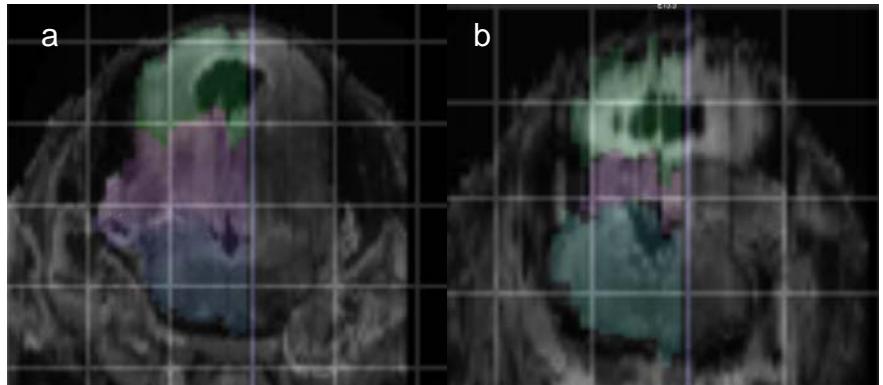


## WNT-subgroup gene: *Wif1*, Wnt inhibitory factor 1 (E15.5)

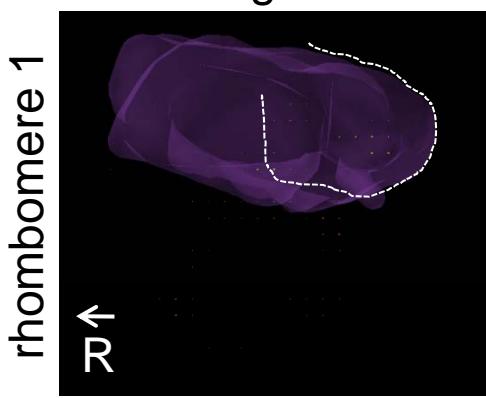
sagittal section



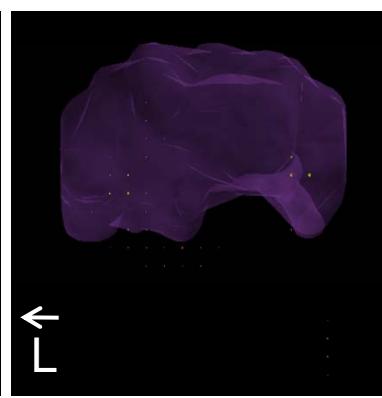
coronal sections



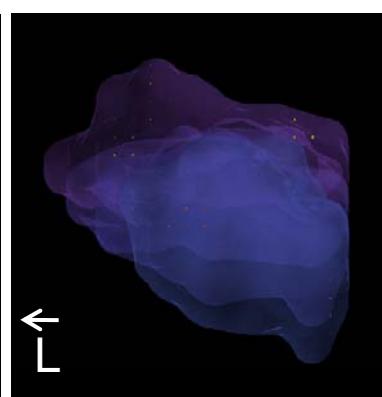
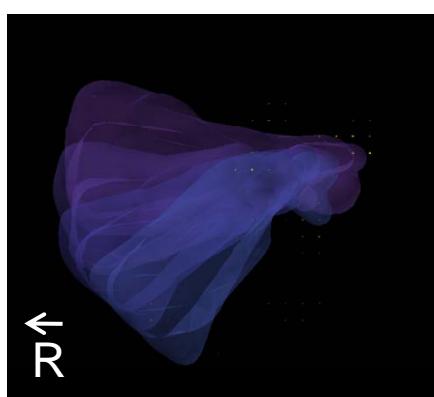
sagittal



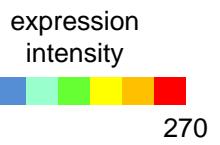
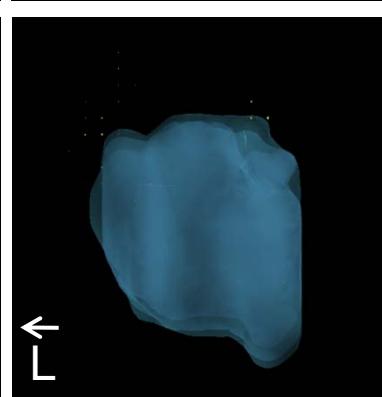
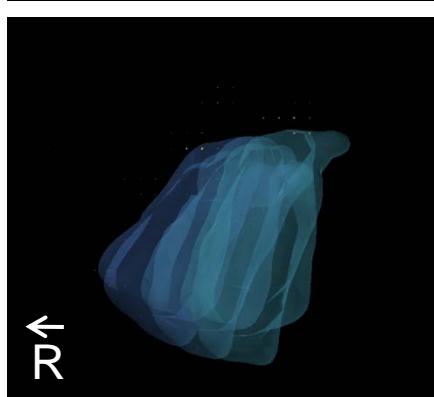
coronal



rhombomere 2-5



rhombomere 6-8

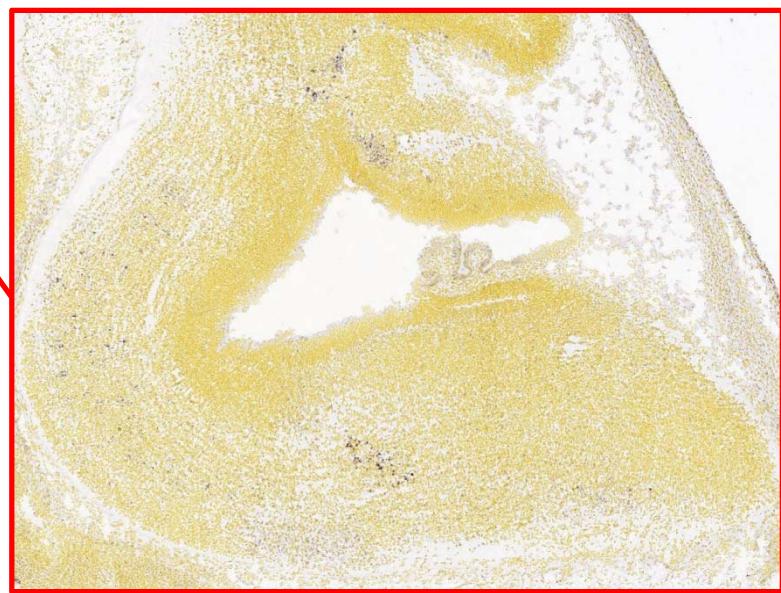
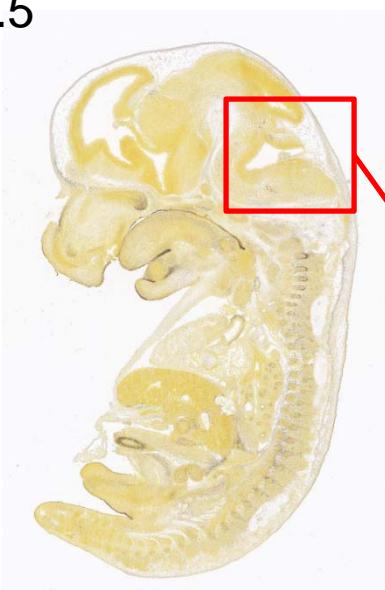


## WNT-subgroup gene: *Lgi2*, Leucine rich repeat protein 2 (*in situ*)

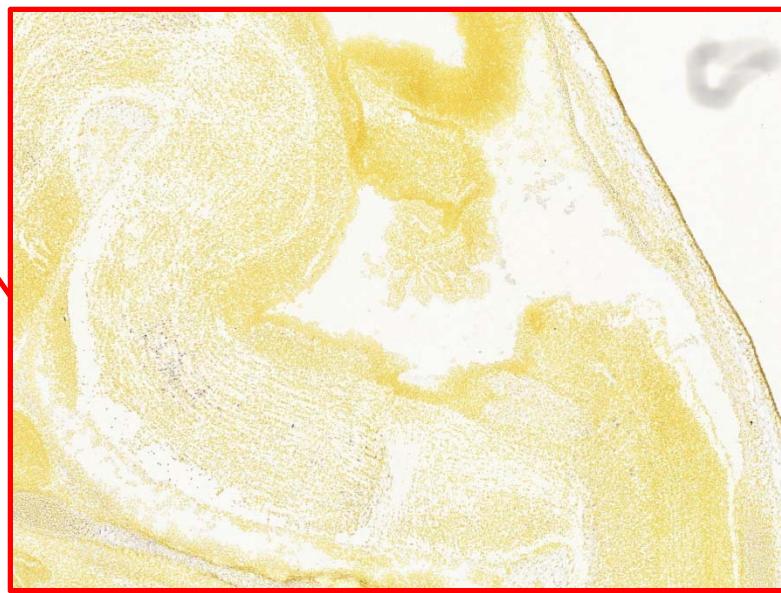
E11.5



E13.5

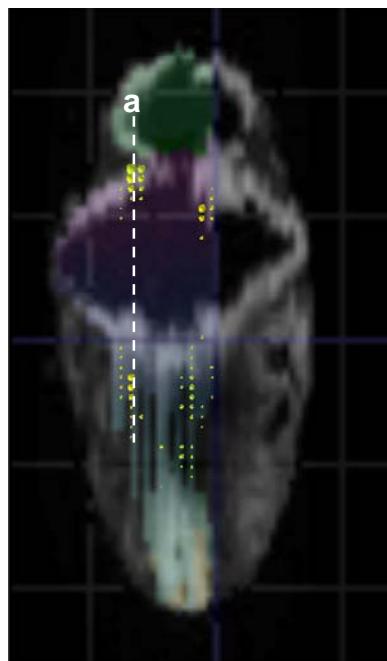


E15.5

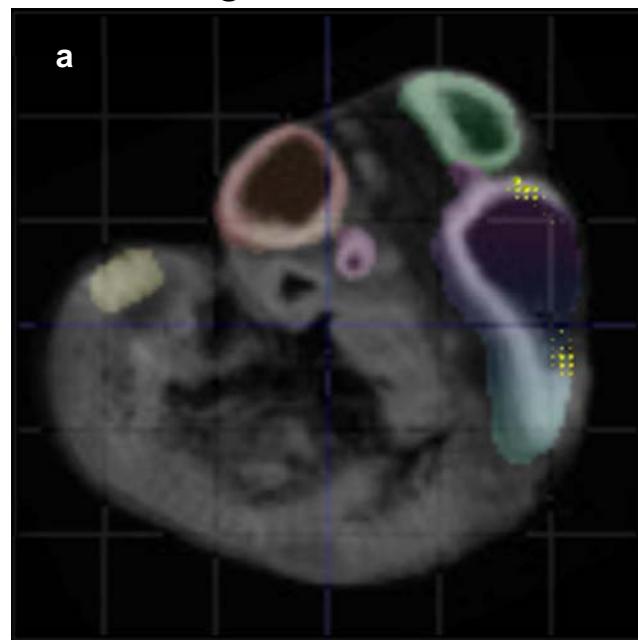


WNT-subgroup gene: *Lgi2*, Leucine rich repeat protein 2 (E11.5)

## coronal section



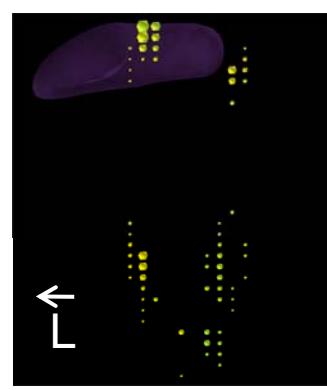
## sagittal section



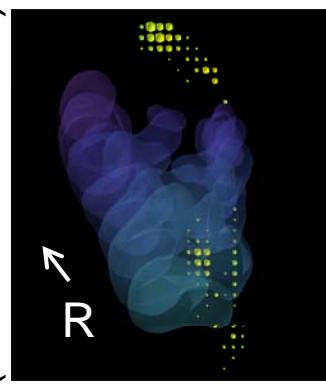
## sagittal



## coronal



lower rhombic lip upper rhombic lip  
(rhombomere 2-8) (rhombomere 1)

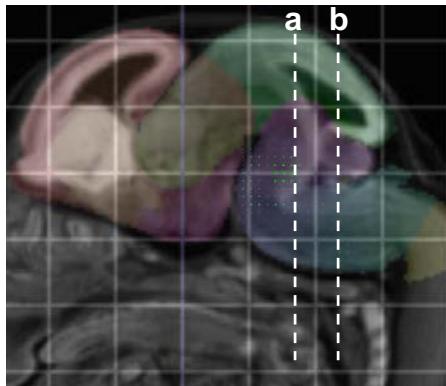


expression  
intensity

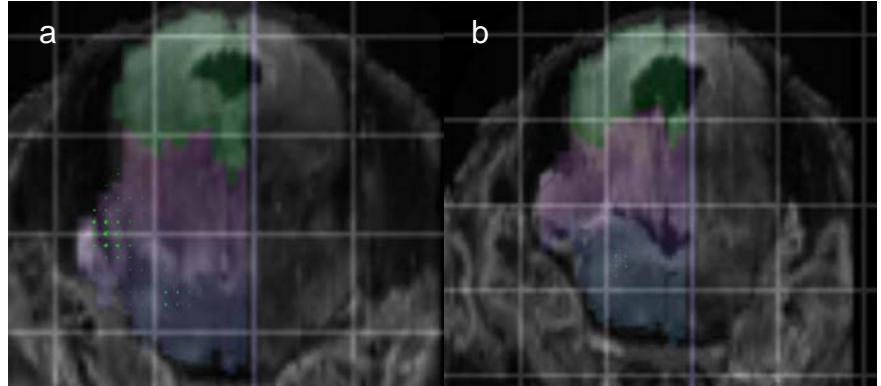


## WNT-subgroup gene: *Lgi2*, Leucine rich repeat protein 2 (E15.5)

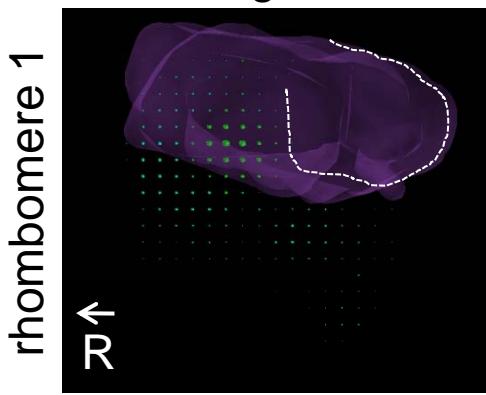
sagittal section



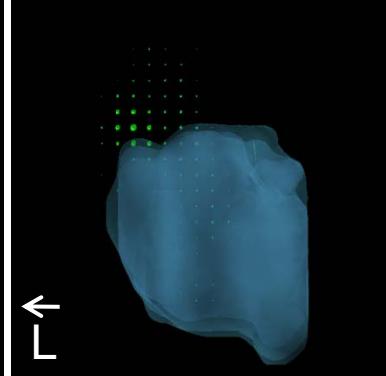
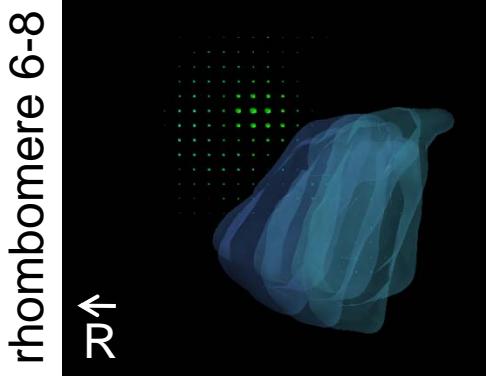
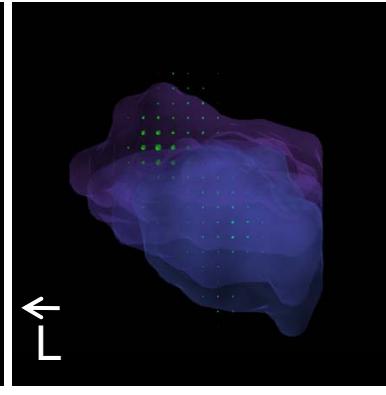
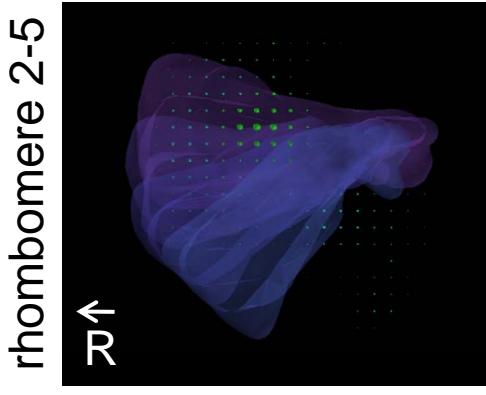
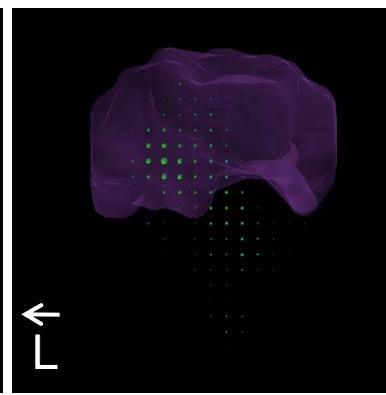
coronal sections



sagittal



coronal

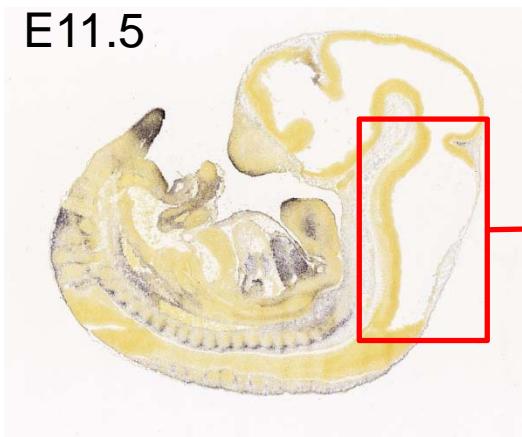


expression  
intensity

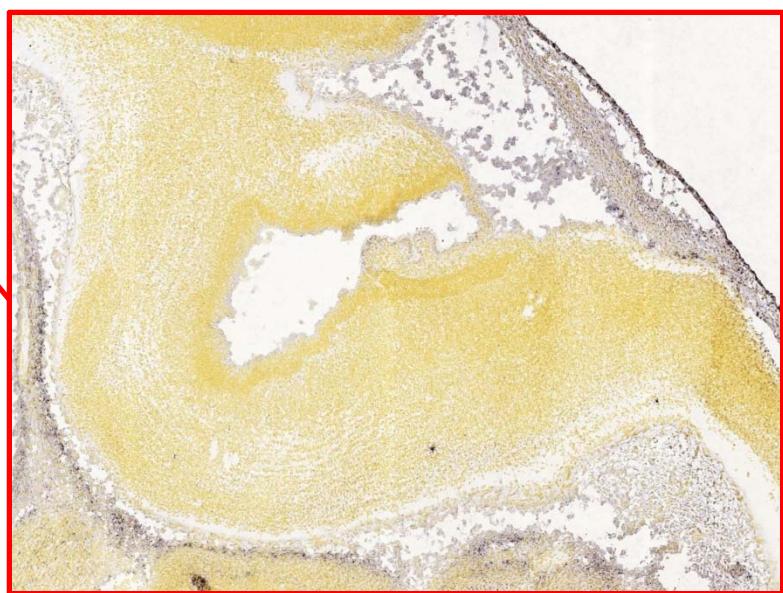
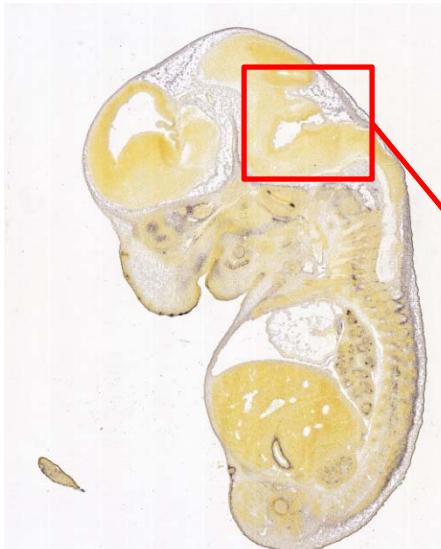


## WNT-subgroup gene: *Bmp4*, Bone morphogenetic protein 4 (*in situ*)

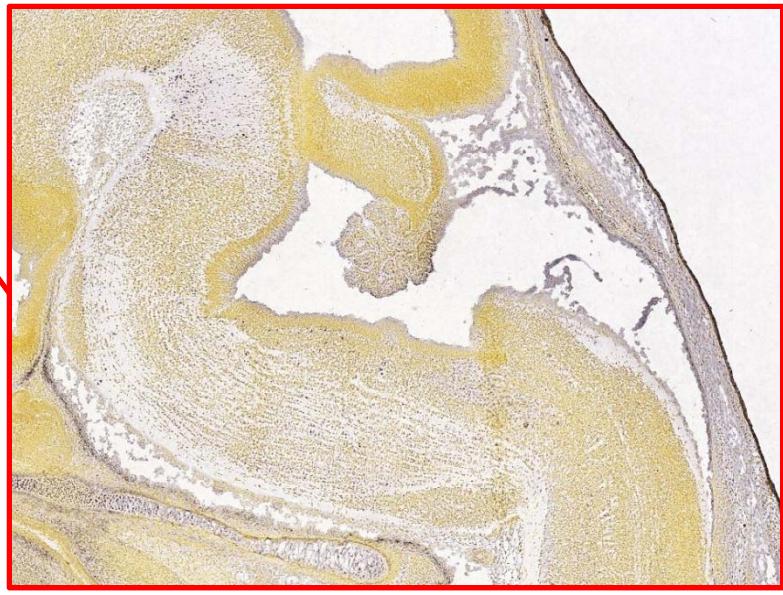
E11.5



E13.5

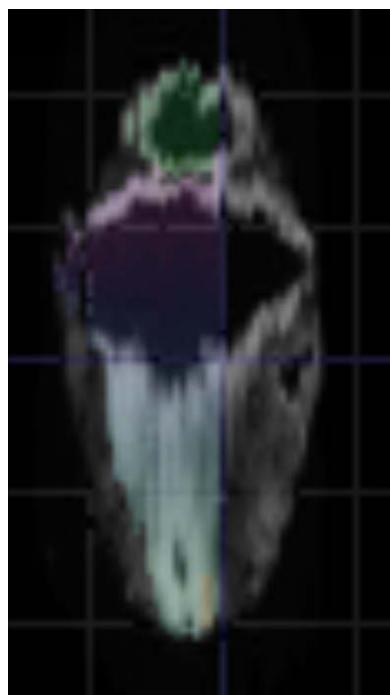


E15.5

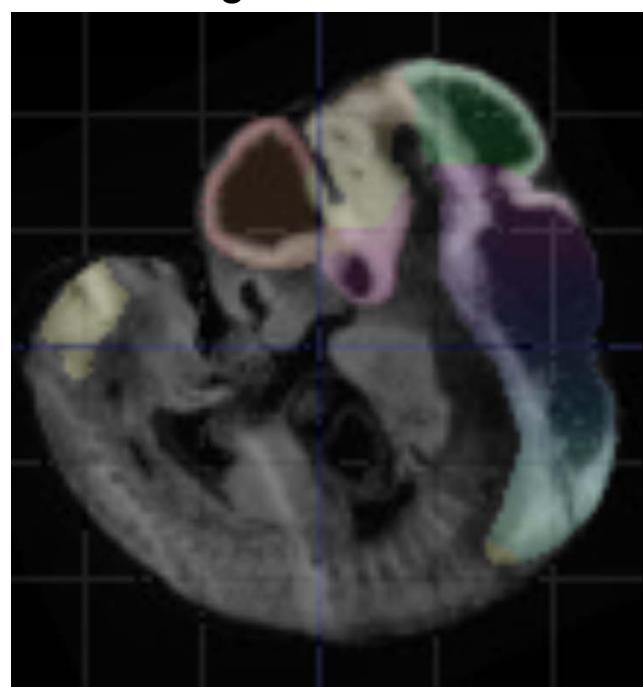


WNT-subgroup gene: *Bmp4*, Bone morphogenetic protein 4 (E11.5)

coronal section



sagittal section



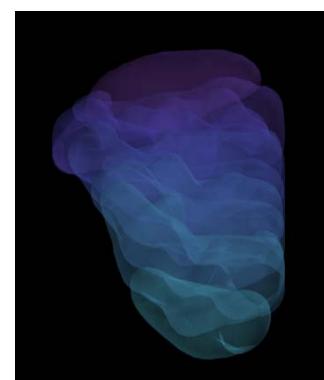
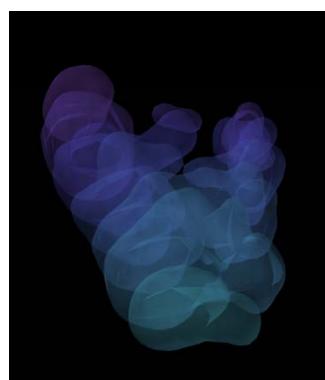
sagittal



coronal



lower rhombic lip upper rhombic lip  
(rhombomere 2-8) (rhombomere 1)

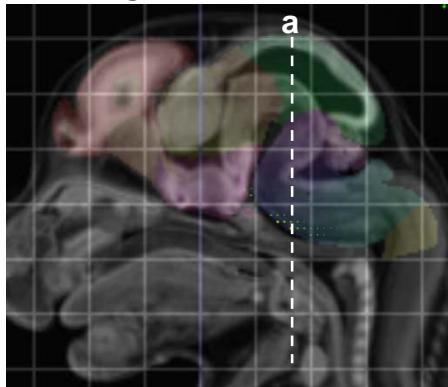


expression  
intensity

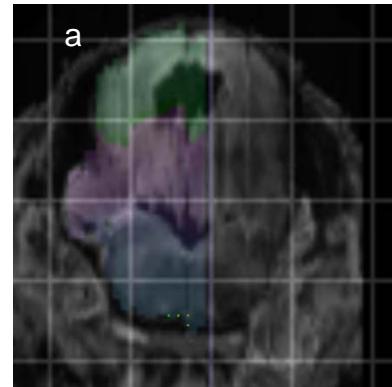


## WNT-subgroup gene: *Bmp4*, Bone morphogenetic protein 4 (E15.5)

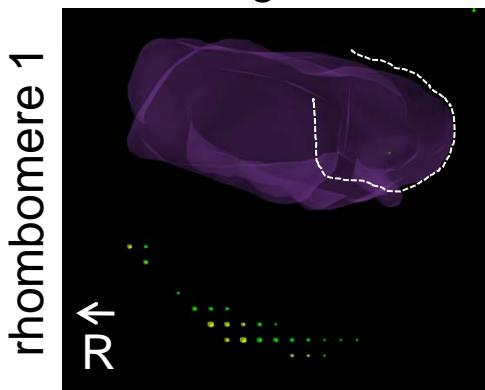
sagittal section



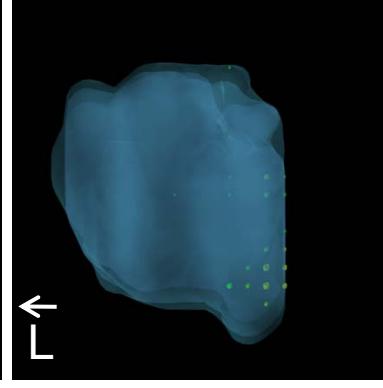
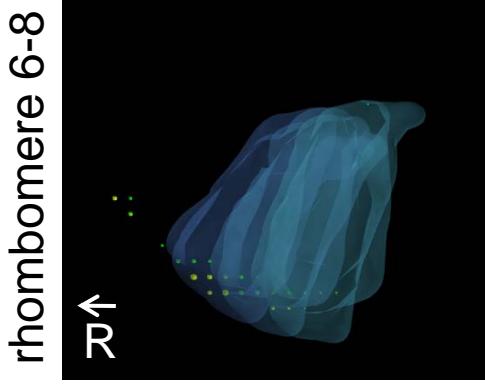
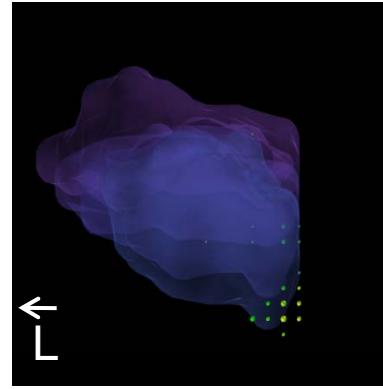
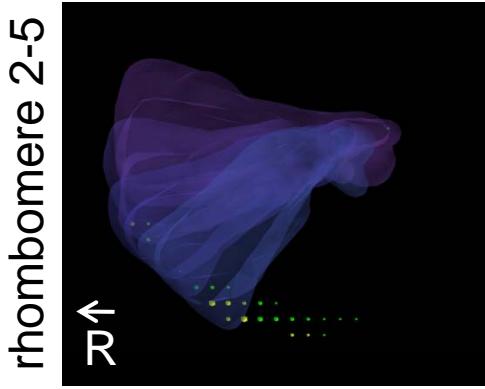
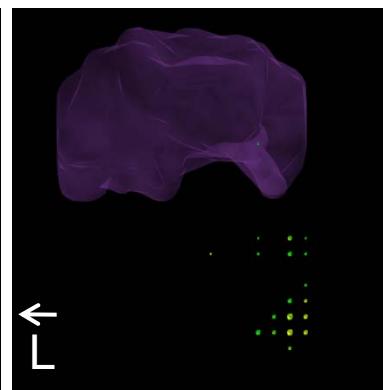
coronal section



sagittal



coronal



expression  
intensity

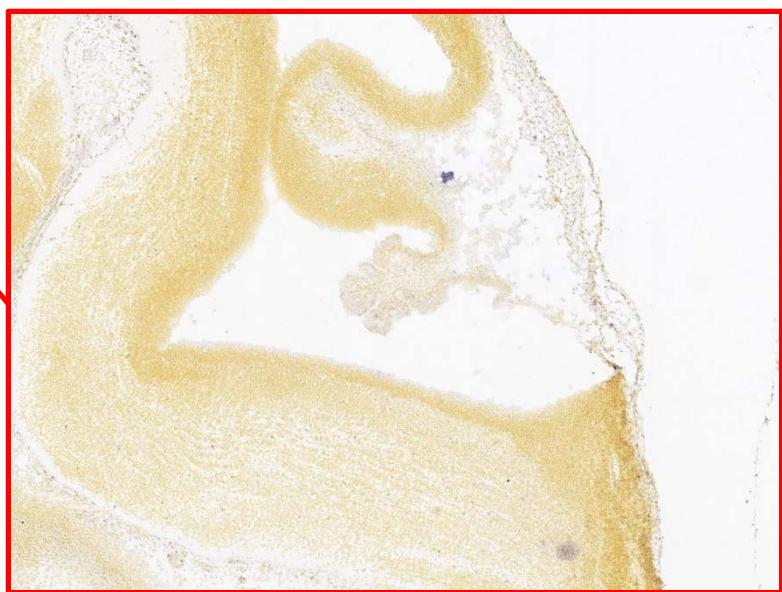


## WNT-subgroup gene: *Fzd6*, Frizzled 6 (*in situ*)

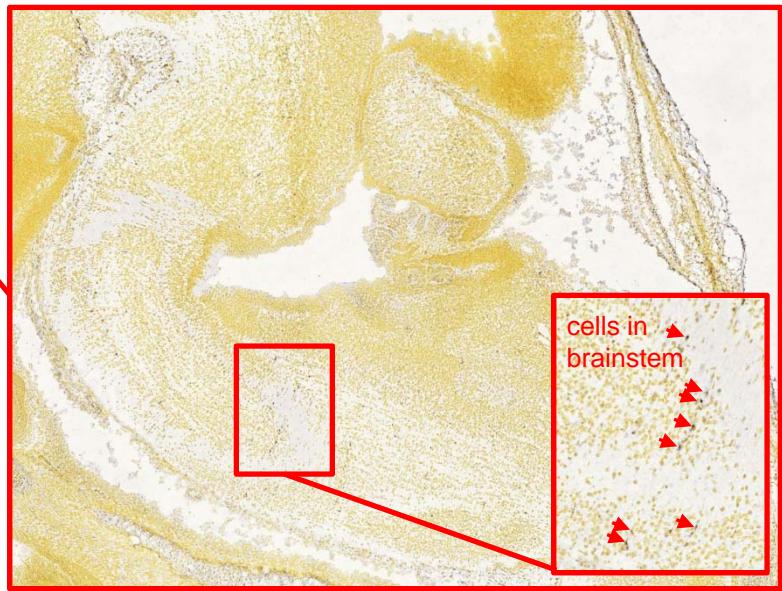
E11.5



E13.5

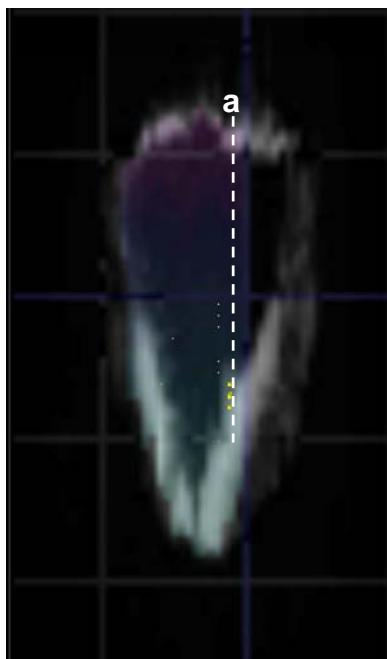


E15.5

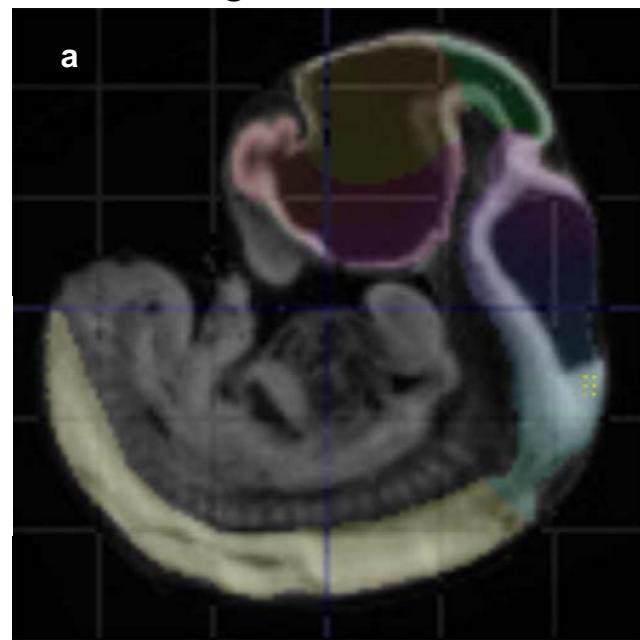


## WNT-subgroup gene: *Fzd6*, Frizzled 6 (E11.5)

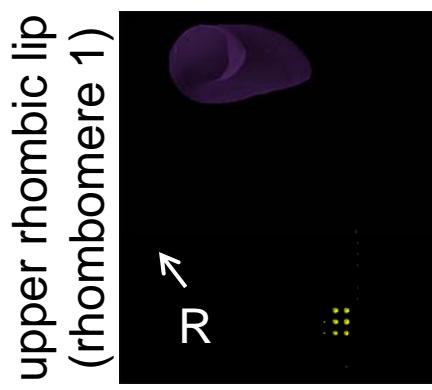
coronal section



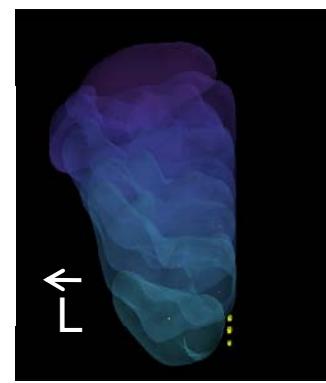
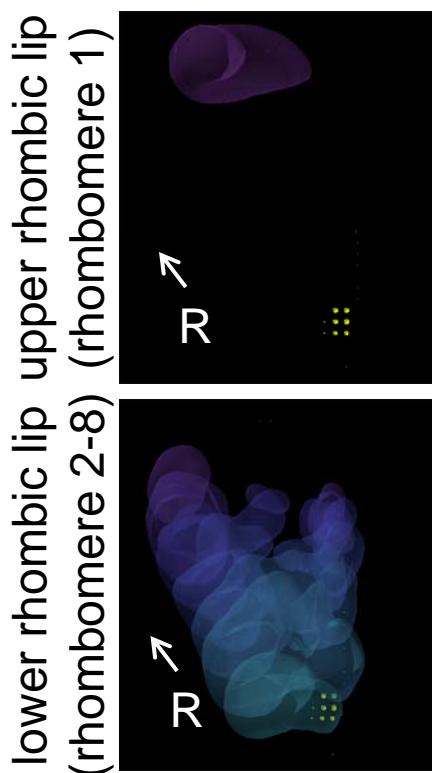
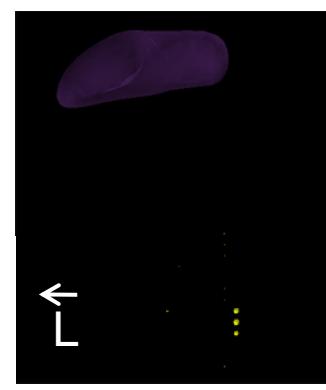
sagittal section



sagittal



coronal



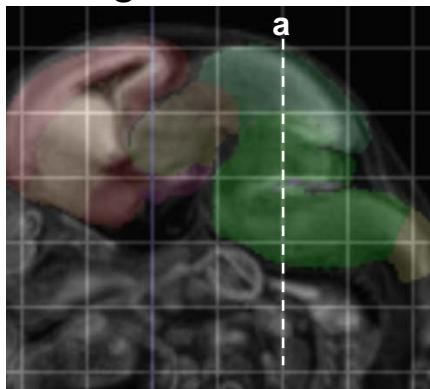
lower rhombic lip upper rhombic lip  
(rhombomere 2-8) (rhombomere 1)

expression intensity

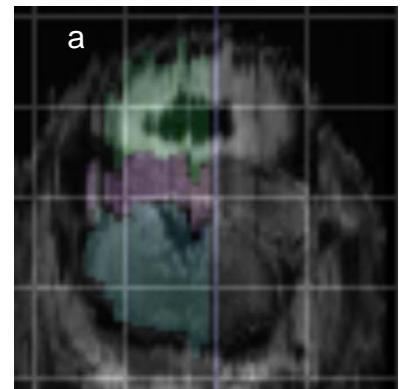


## WNT-subgroup gene: *Fzd6*, Frizzled 6 (E15.5)

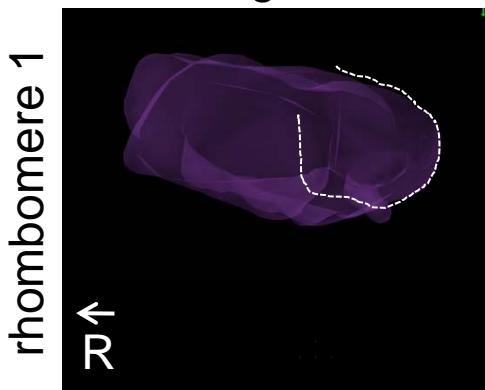
sagittal section



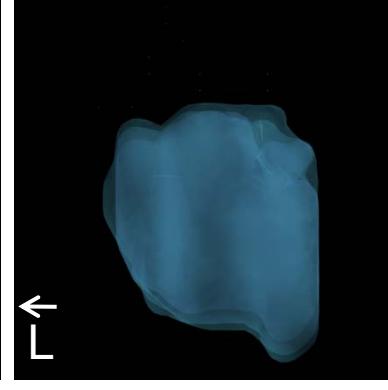
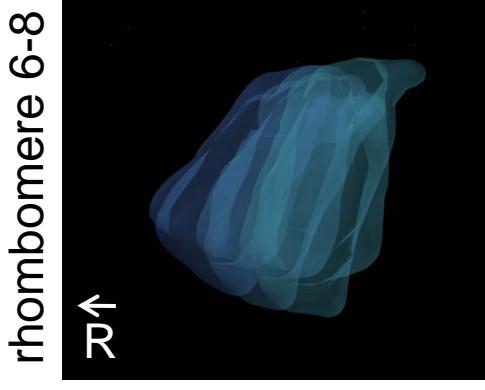
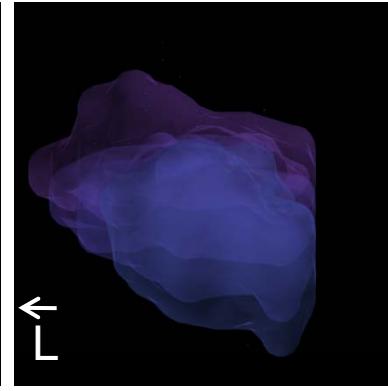
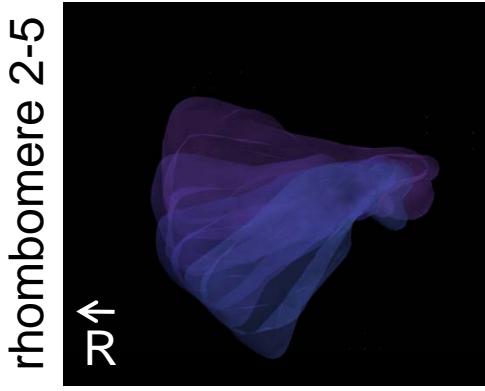
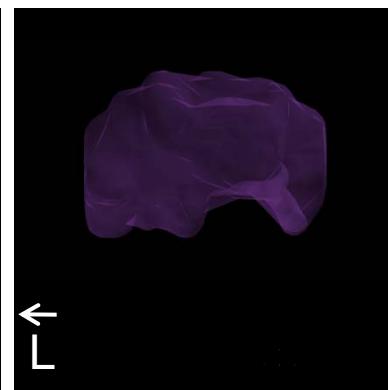
coronal section



sagittal



coronal



expression  
intensity

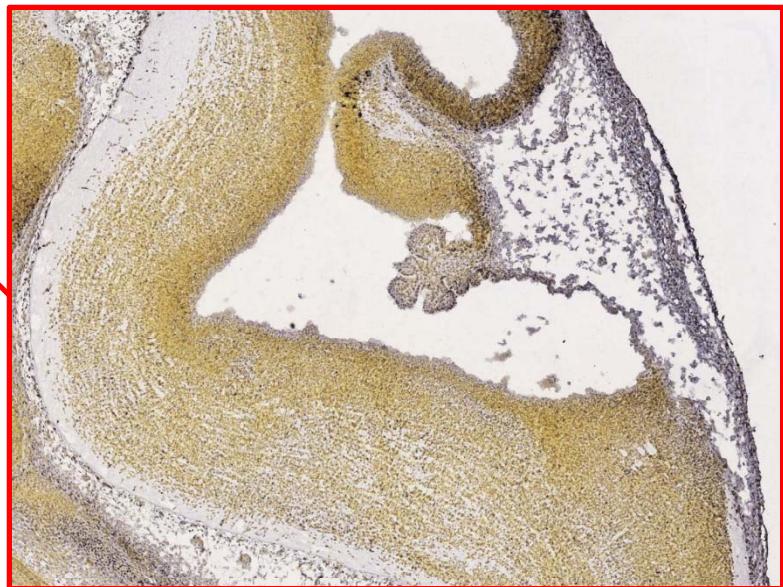


## WNT-subgroup gene: *Lef1*, Lymphoid enhancer binding 1 (*in situ*)

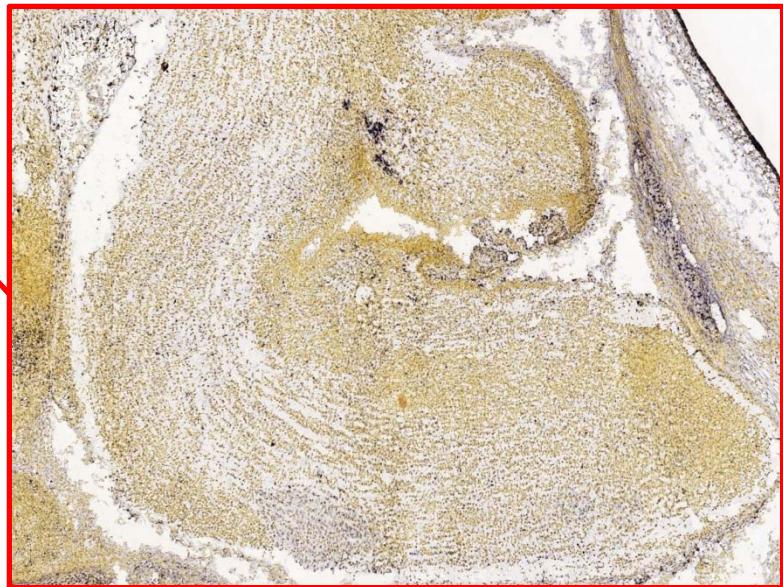
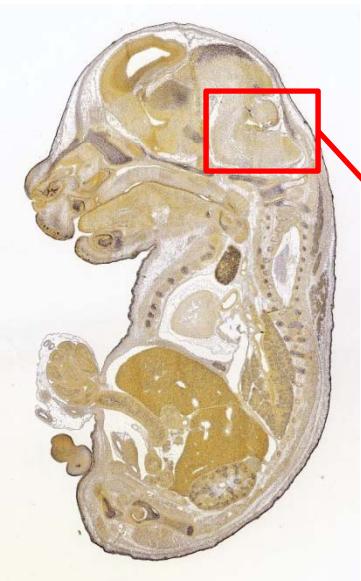
E11.5



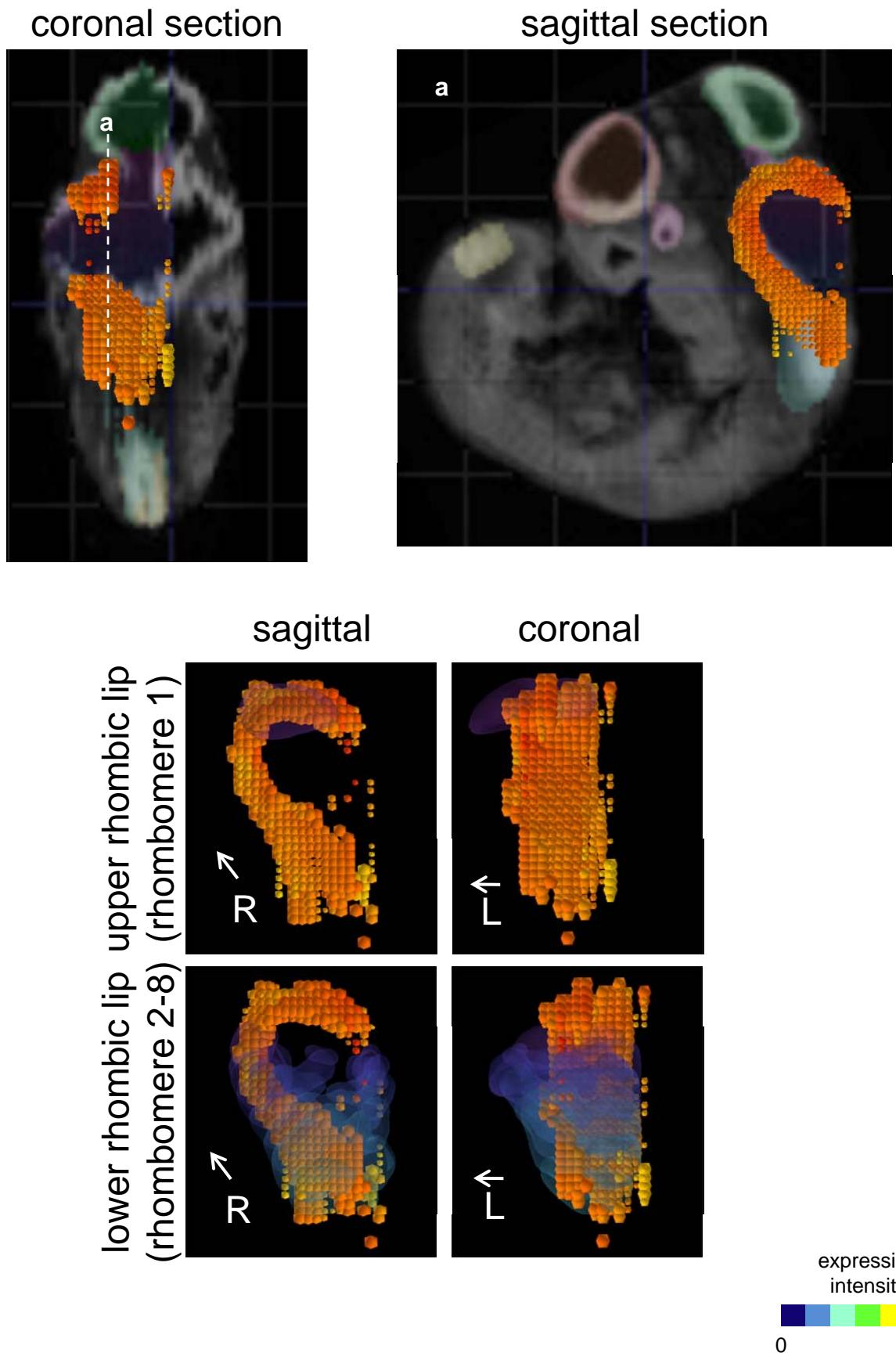
E13.5



E15.5

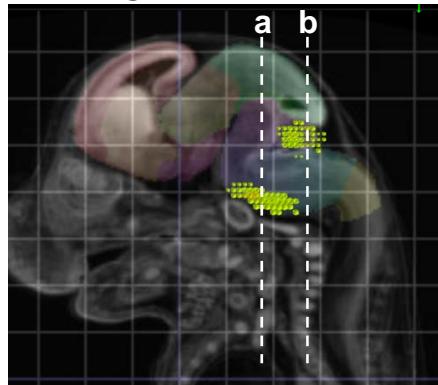


## WNT-subgroup gene: *Lef1*, Lymphoid enhancer binding 1 (E11.5)

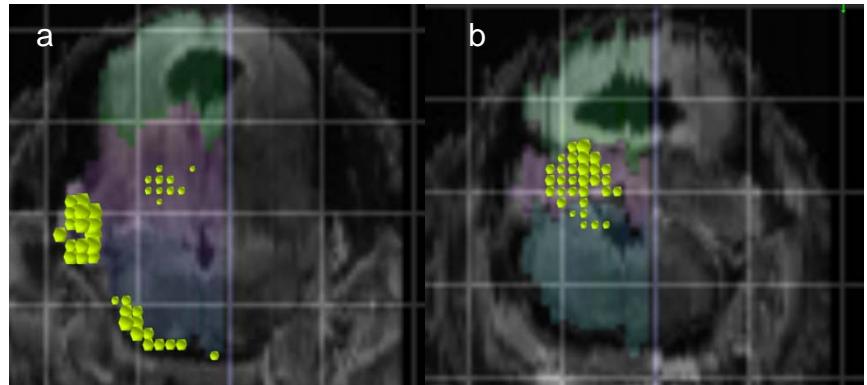


# WNT-subgroup gene: *Lef1*, Lymphoid enhancer binding 1 (E15.5)

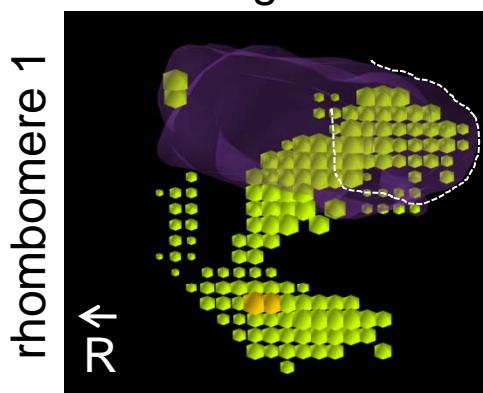
sagittal section



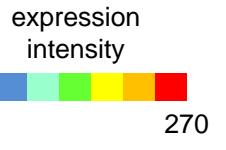
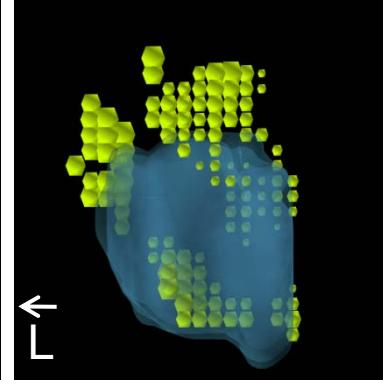
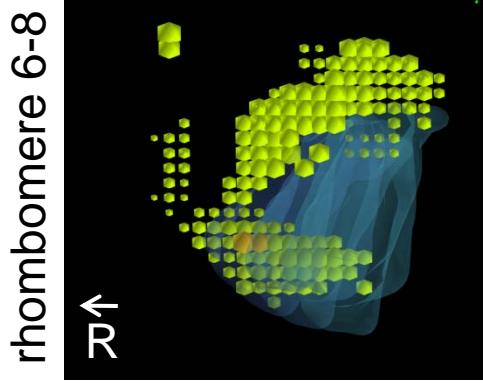
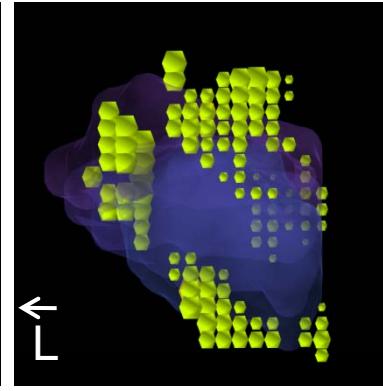
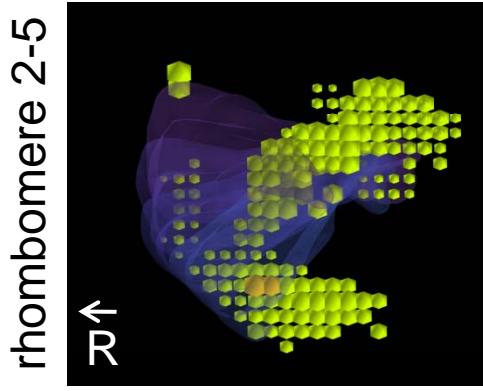
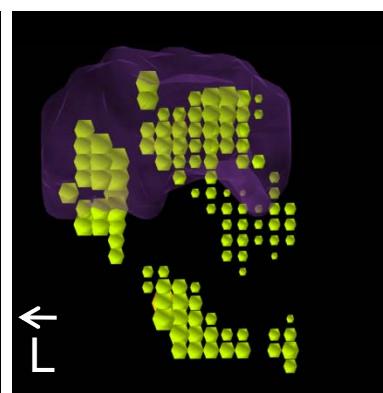
coronal sections



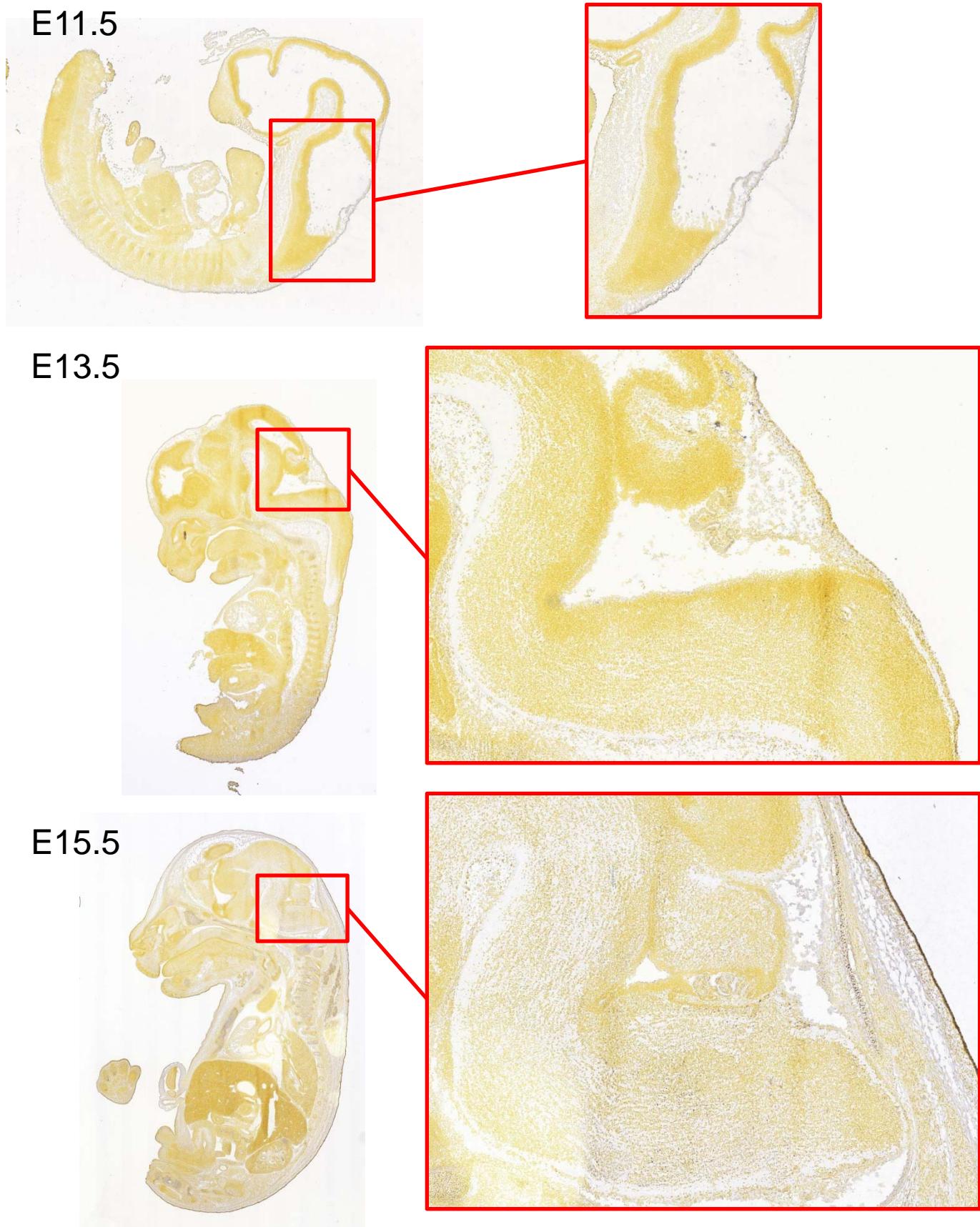
sagittal



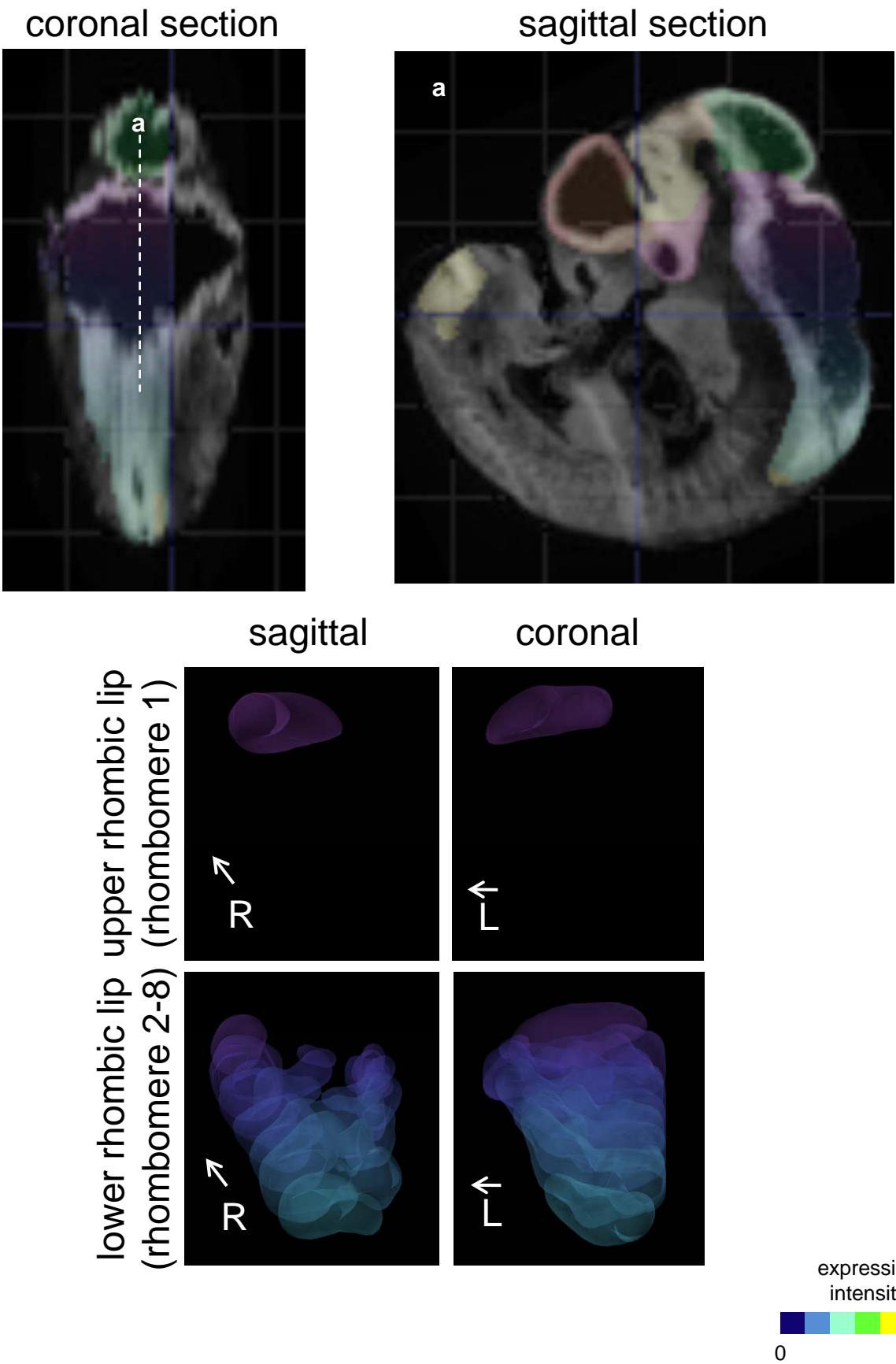
coronal



## WNT-subgroup gene: *Galr1*, Galanin receptor (*in situ*)

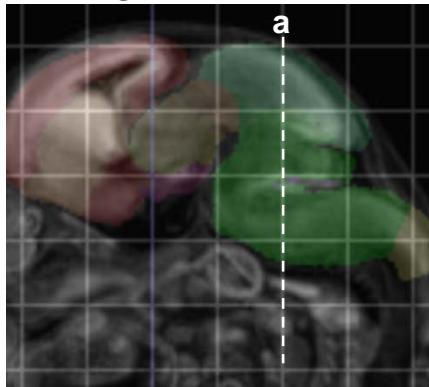


## WNT-subgroup gene: *Galr1*, Galanin receptor (E11.5)

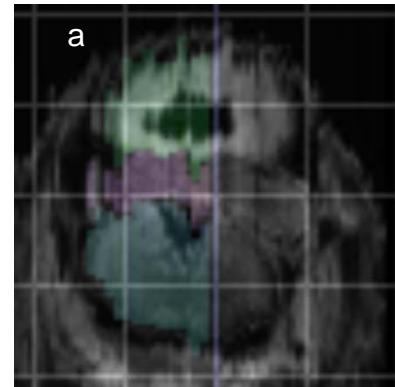


## WNT-subgroup gene: *Galr1*, Galanin receptor (E15.5)

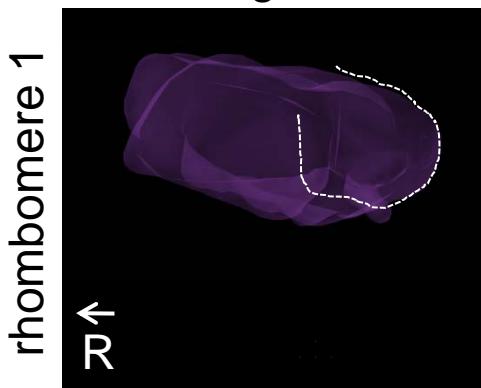
sagittal section



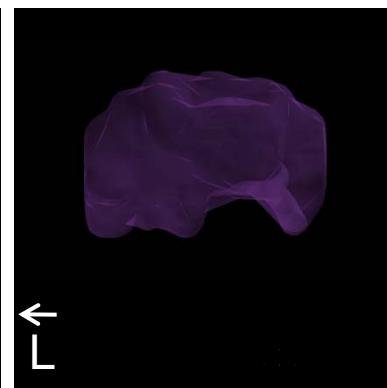
coronal section



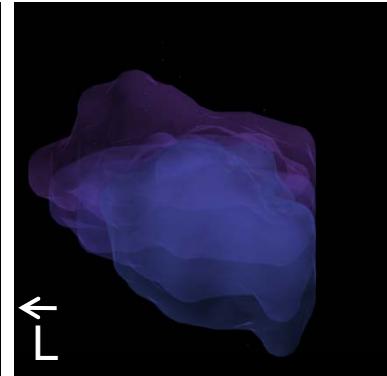
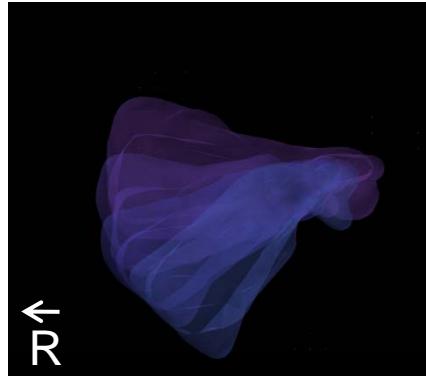
sagittal



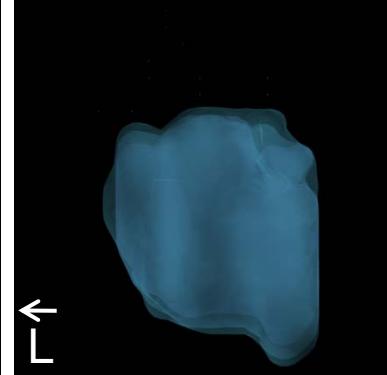
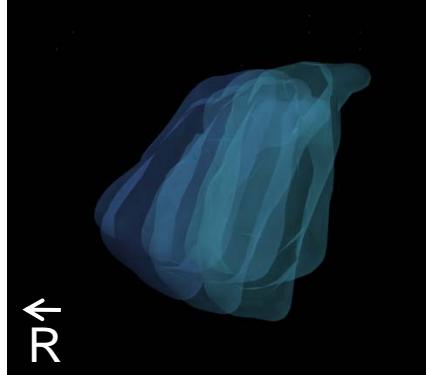
coronal



rhombomere 2-5



rhombomere 6-8

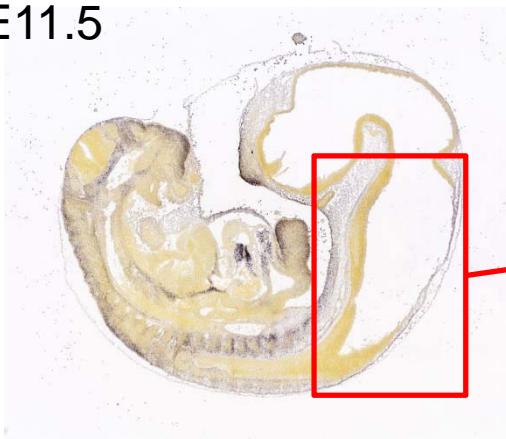


expression  
intensity



## WNT-subgroup gene: *Twist1*, Twist homolog 1 (*in situ*)

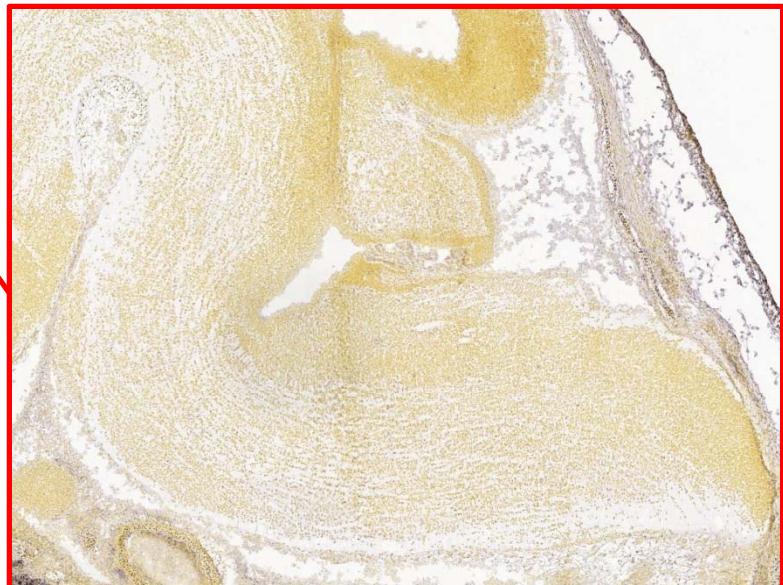
E11.5



E13.5

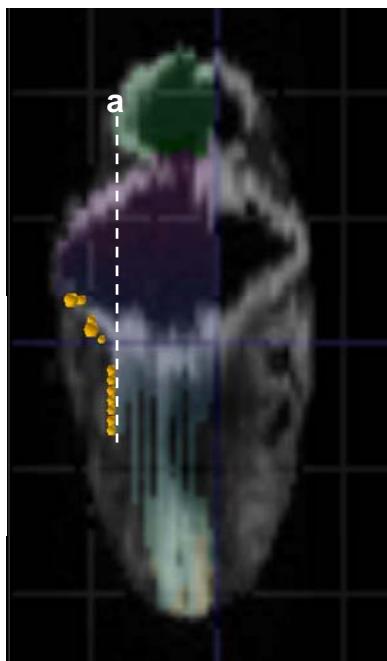


E15.5

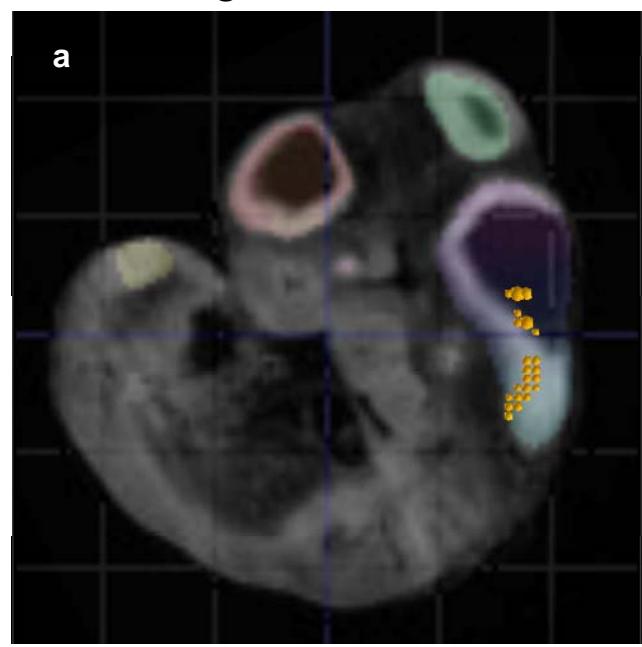


## WNT-subgroup gene: *Twist1*, Twist homolog 1 (E11.5)

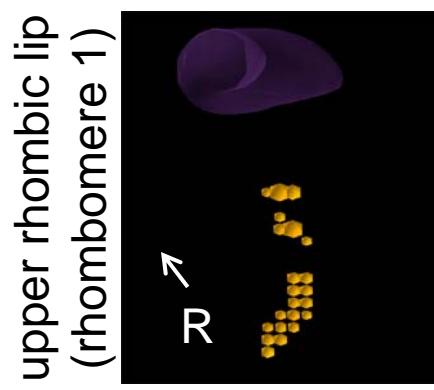
coronal section



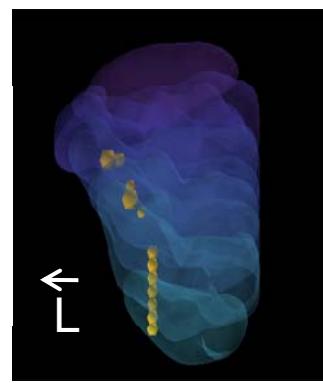
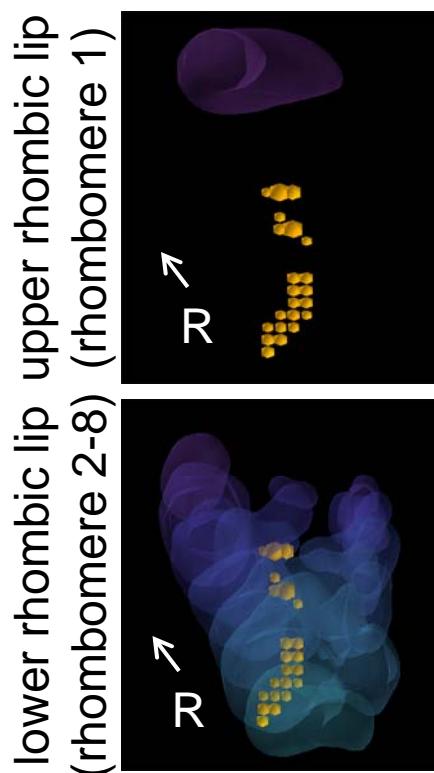
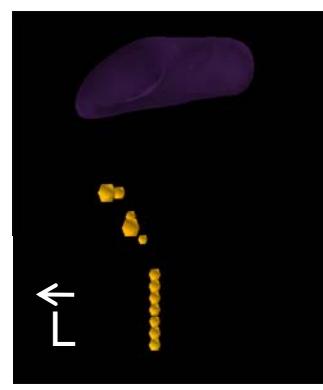
sagittal section



sagittal



coronal



expression intensity

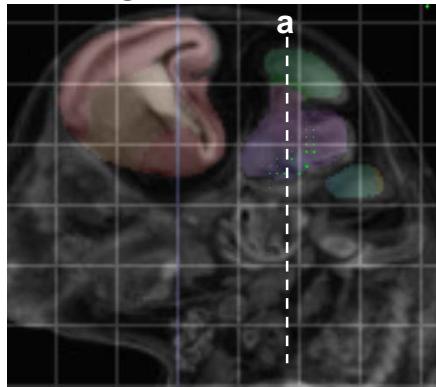


0

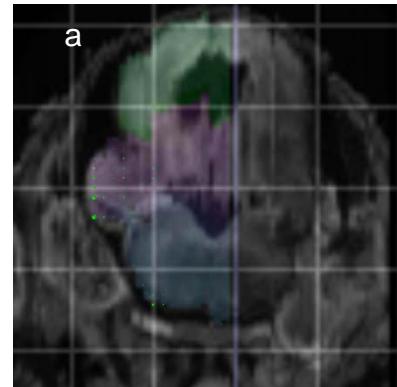
270

## WNT-subgroup gene: *Twist1*, Twist homolog 1 (E15.5)

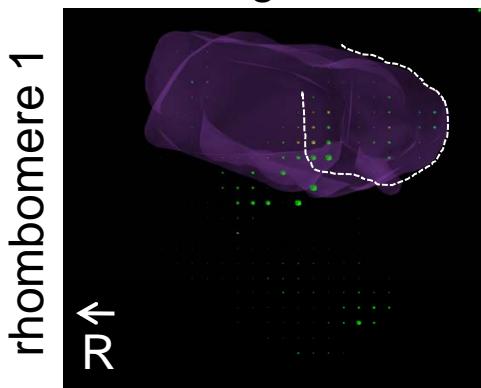
sagittal section



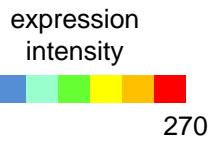
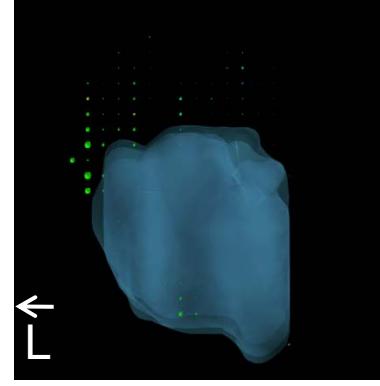
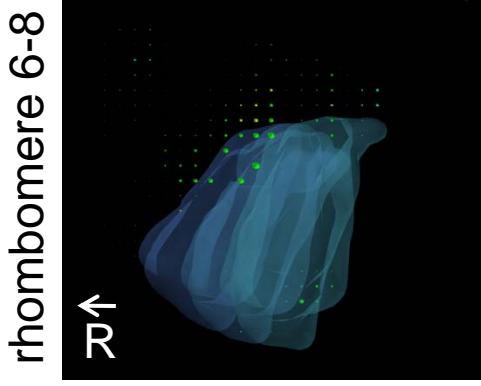
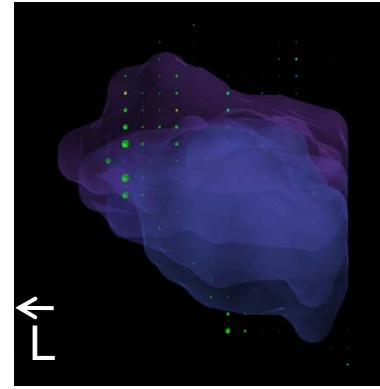
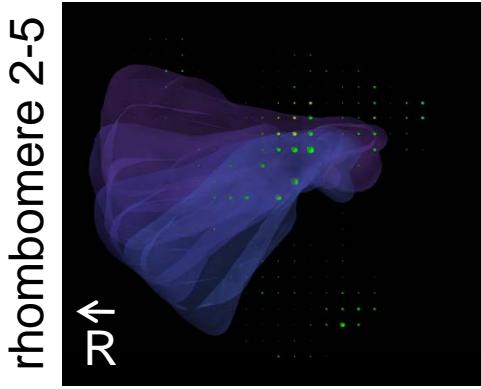
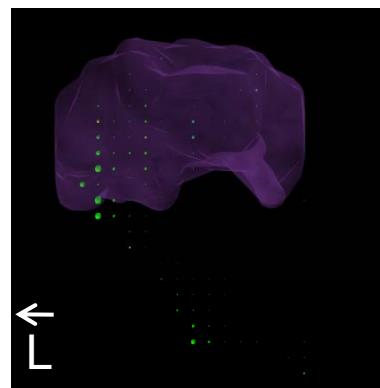
coronal section



sagittal



coronal



## WNT-subgroup gene: *Col9a3*, Procollagen IXa3 (*in situ*)

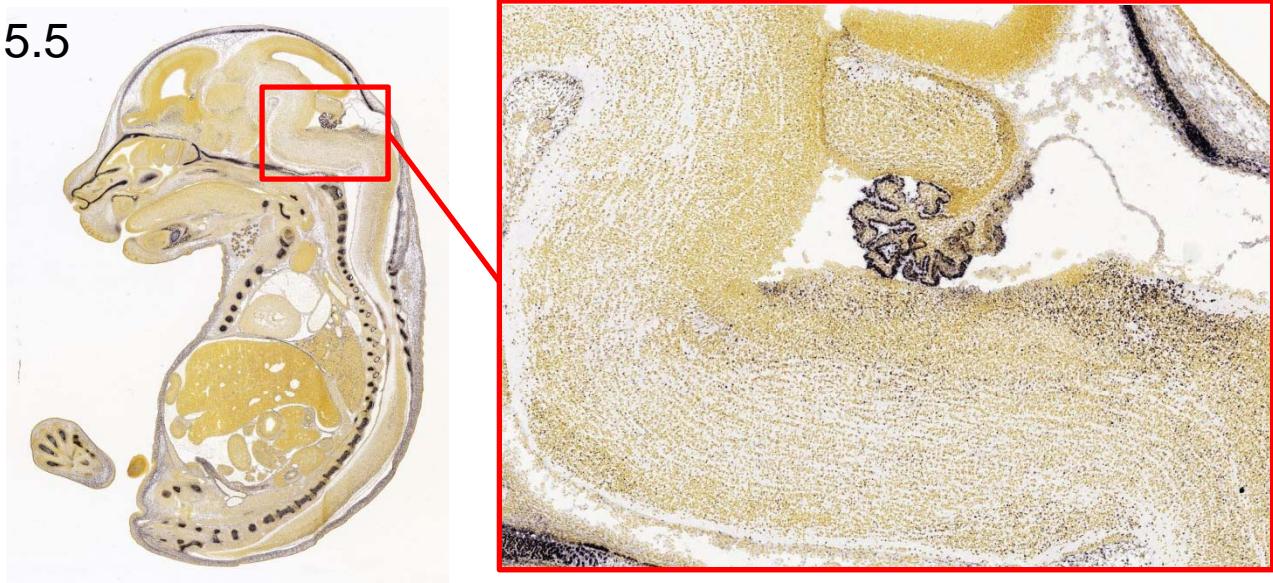
E11.5



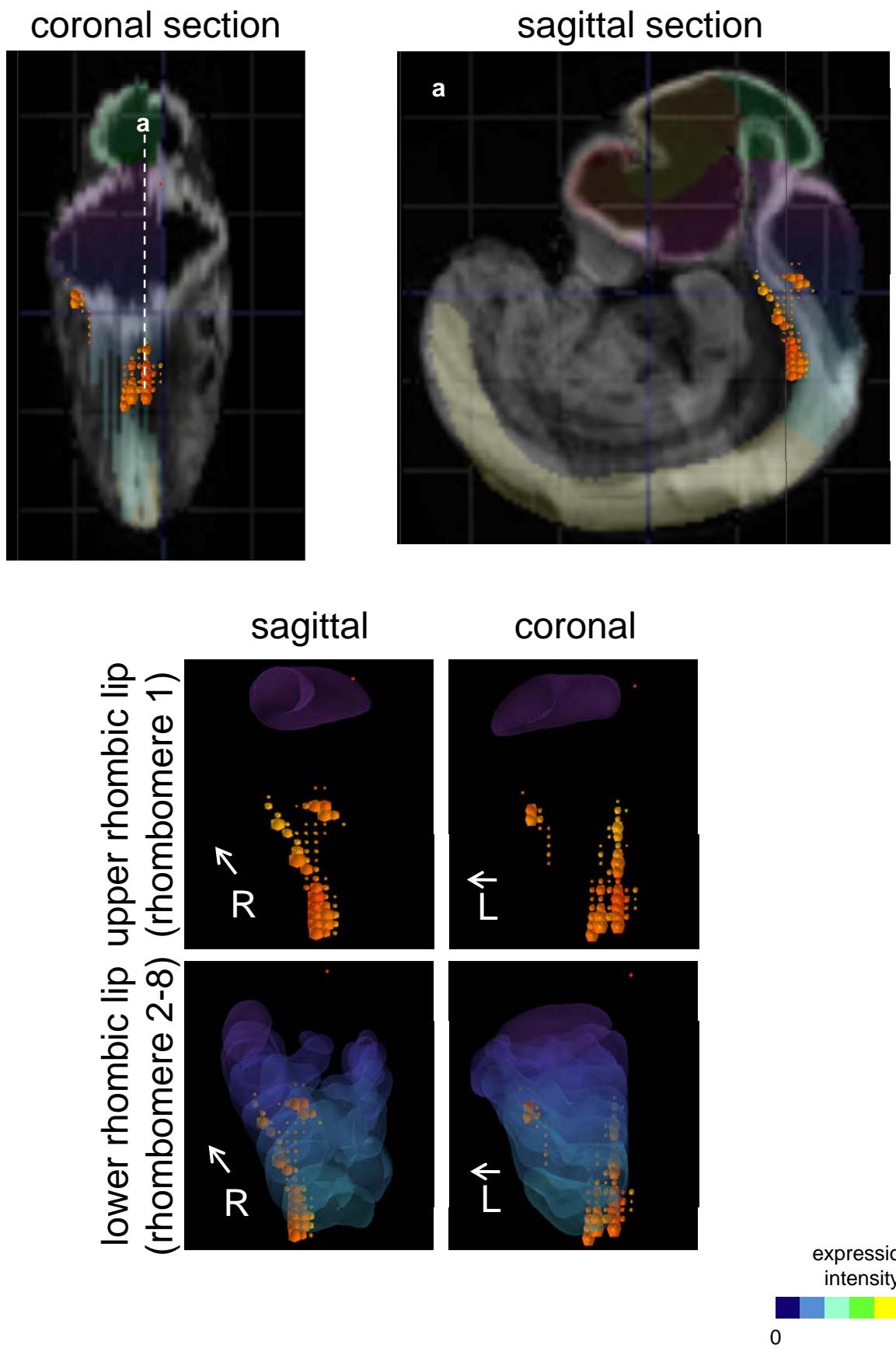
E13.5



E15.5

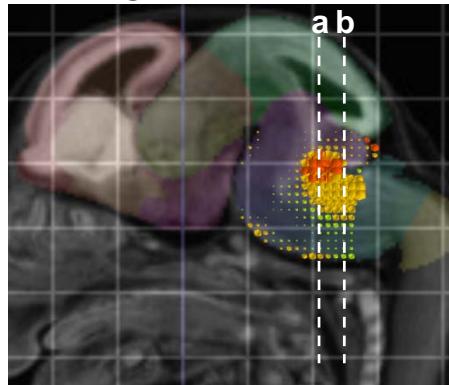


WNT-subgroup gene: *Col9a3*, Procollagen IXa3 (E11.5)

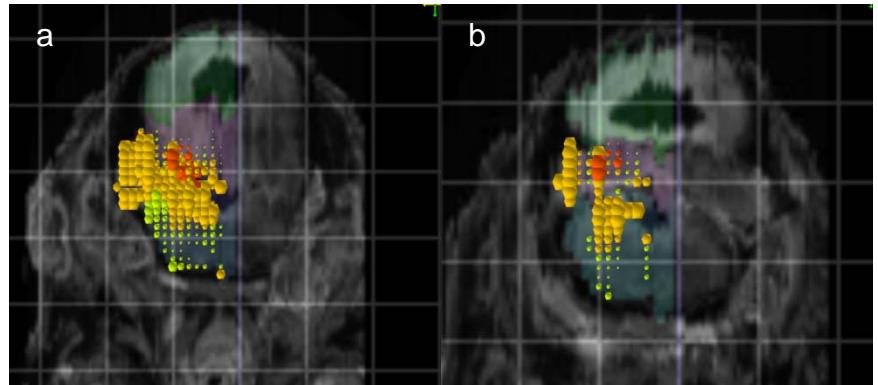


WNT-subgroup gene: *Col9a3*, Procollagen IXa3 (E15.5)

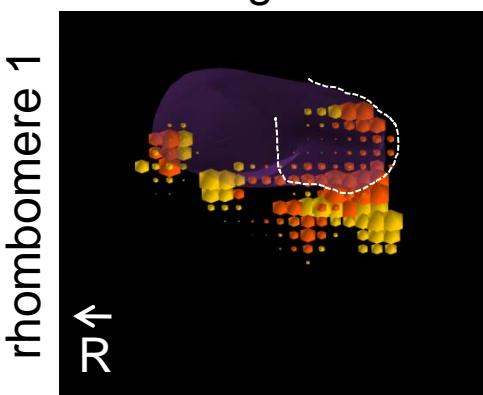
## sagittal section



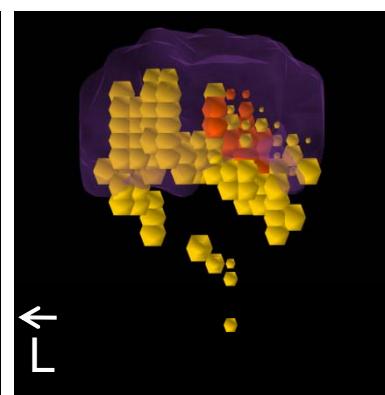
## coronal sections



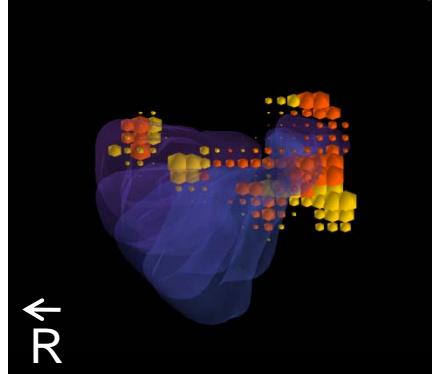
## sagittal



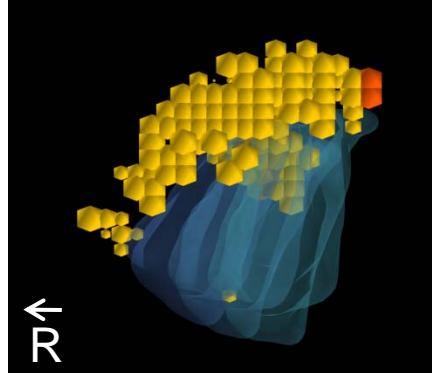
## coronal



rhombomerie 2-5



rhombomerie 6-8



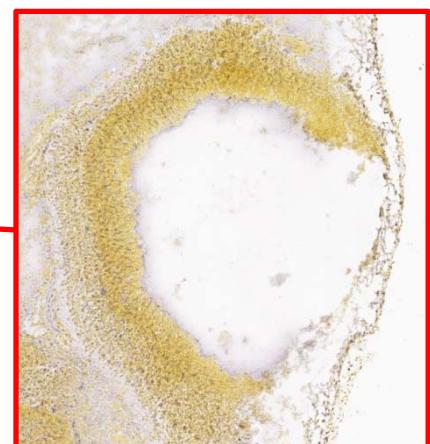
A 3D reconstruction of a brain scan, likely from an fMRI or similar functional imaging technique. The image shows a complex network of yellow and red clusters, representing areas of significant activity or connectivity. The clusters are primarily located in the cerebral cortex, with some extending into the underlying white matter. A large, semi-transparent blue sphere is overlaid on the brain model, centered around the clusters. A black arrow points towards the bottom left corner of the image.

expression  
intensity

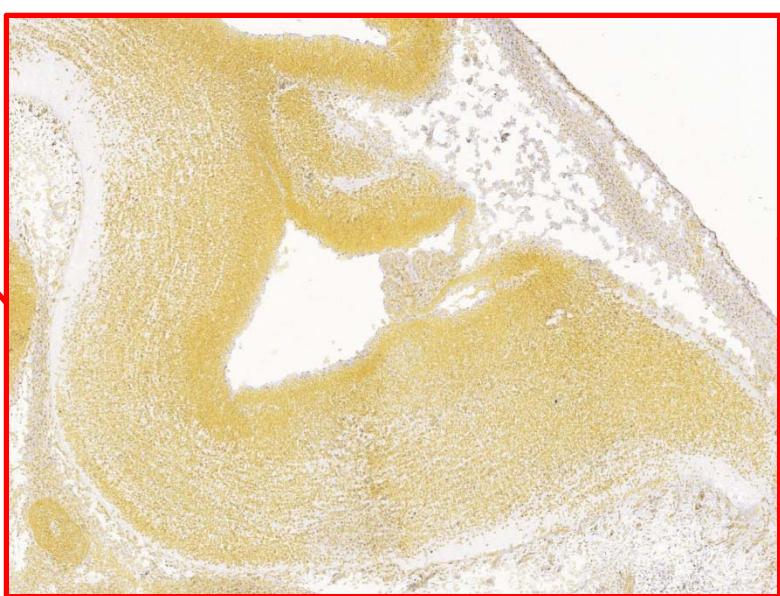
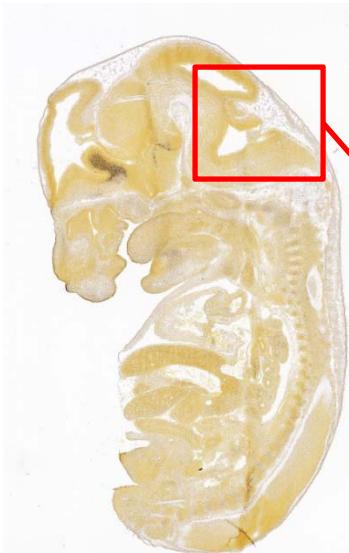
A horizontal color bar consisting of seven equal-width rectangular segments. The colors transition from dark blue on the left to bright red on the right, with intermediate segments in cyan, light blue, green, yellow, and orange.

## WNT-subgroup gene: *Lhx6*, Lim homeobox 6 (*in situ*)

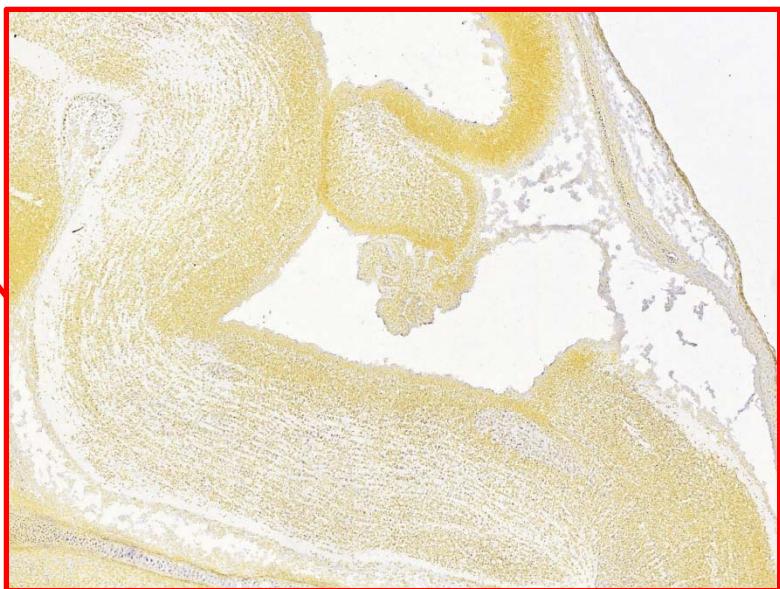
E11.5



E13.5

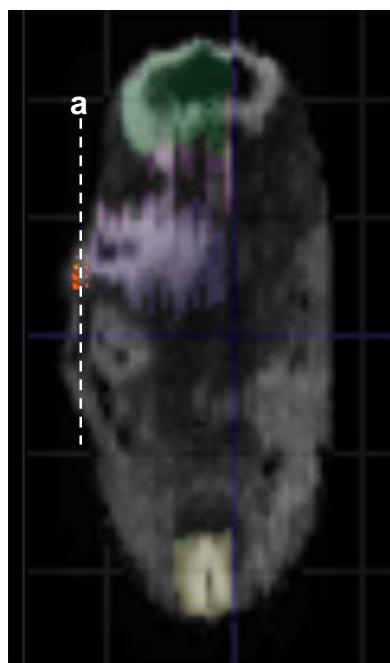


E15.5

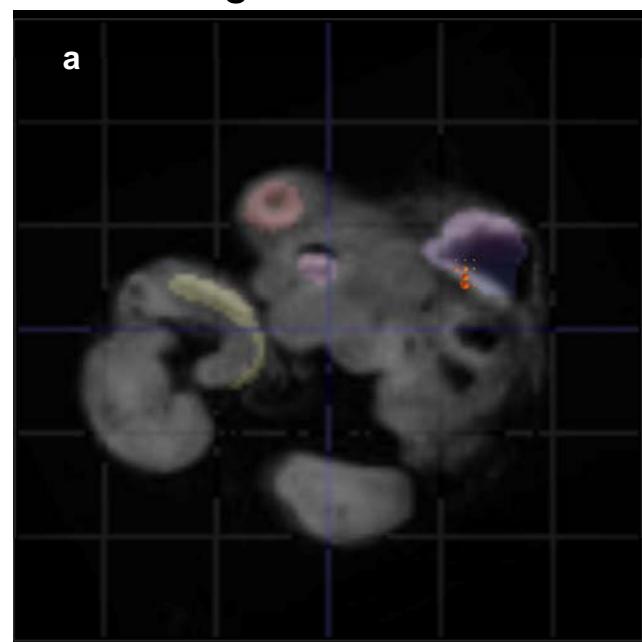


## WNT-subgroup gene: *Lhx6*, Lim homeobox 6 (E11.5)

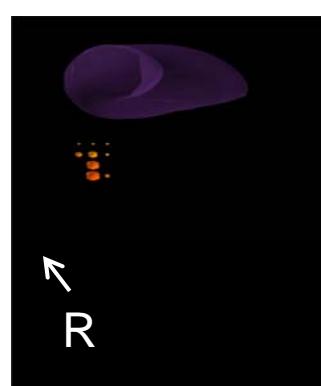
coronal section



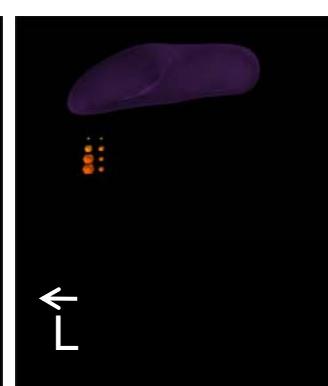
sagittal section



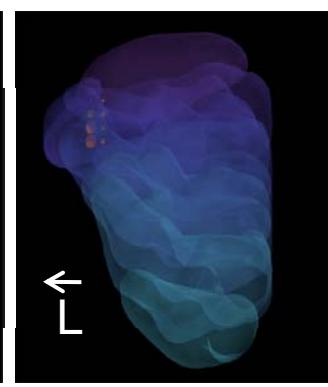
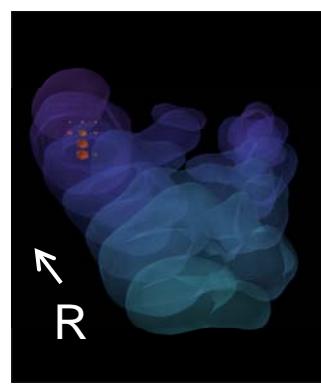
sagittal



coronal



lower rhombic lip upper rhombic lip  
(rhombomere 2-8) (rhombomere 1)

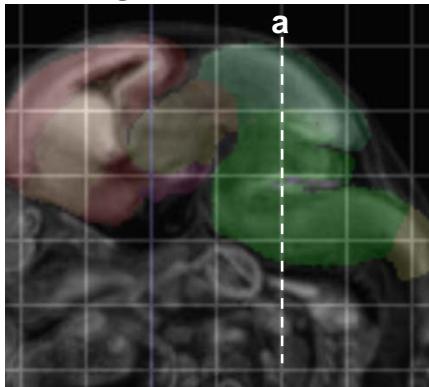


expression intensity

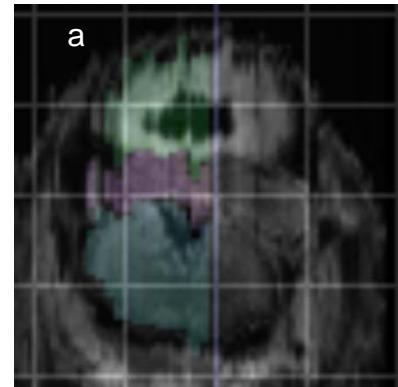


## WNT-subgroup gene: *Lhx6*, Lim homeobox 6 (E15.5)

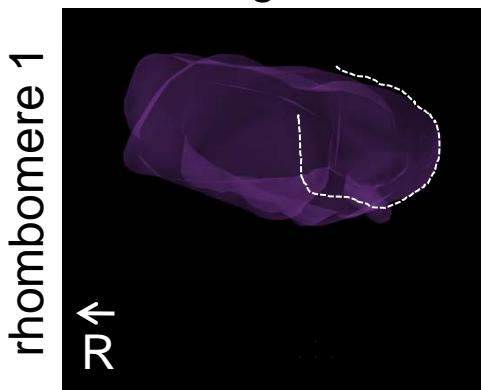
sagittal section



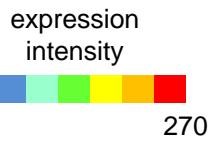
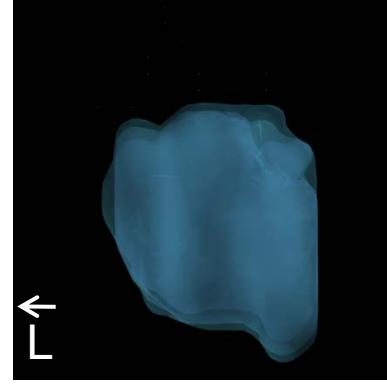
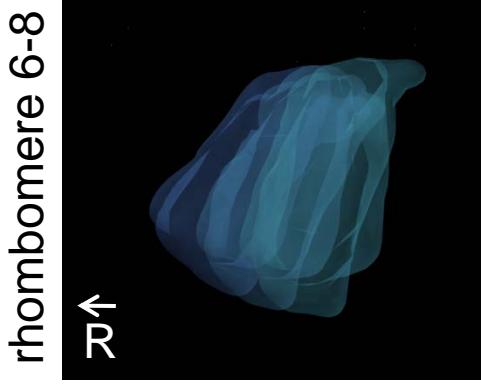
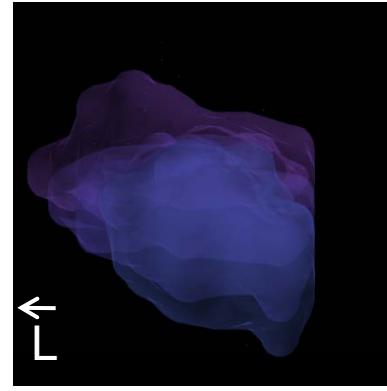
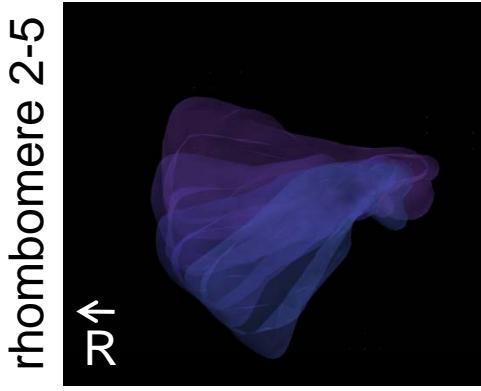
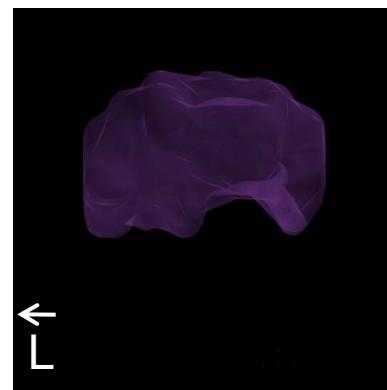
coronal section



sagittal

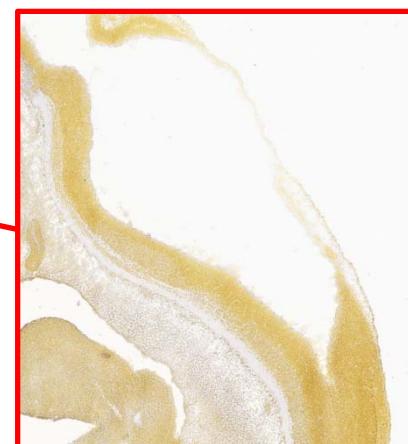


coronal



## WNT-subgroup gene: *Tph1*, Tryptophan hydroxylase 1 (*in situ*)

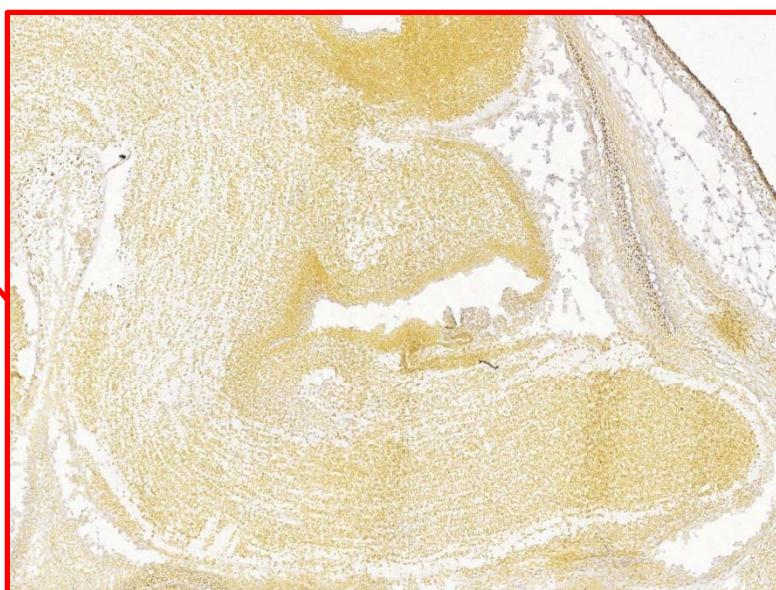
E11.5



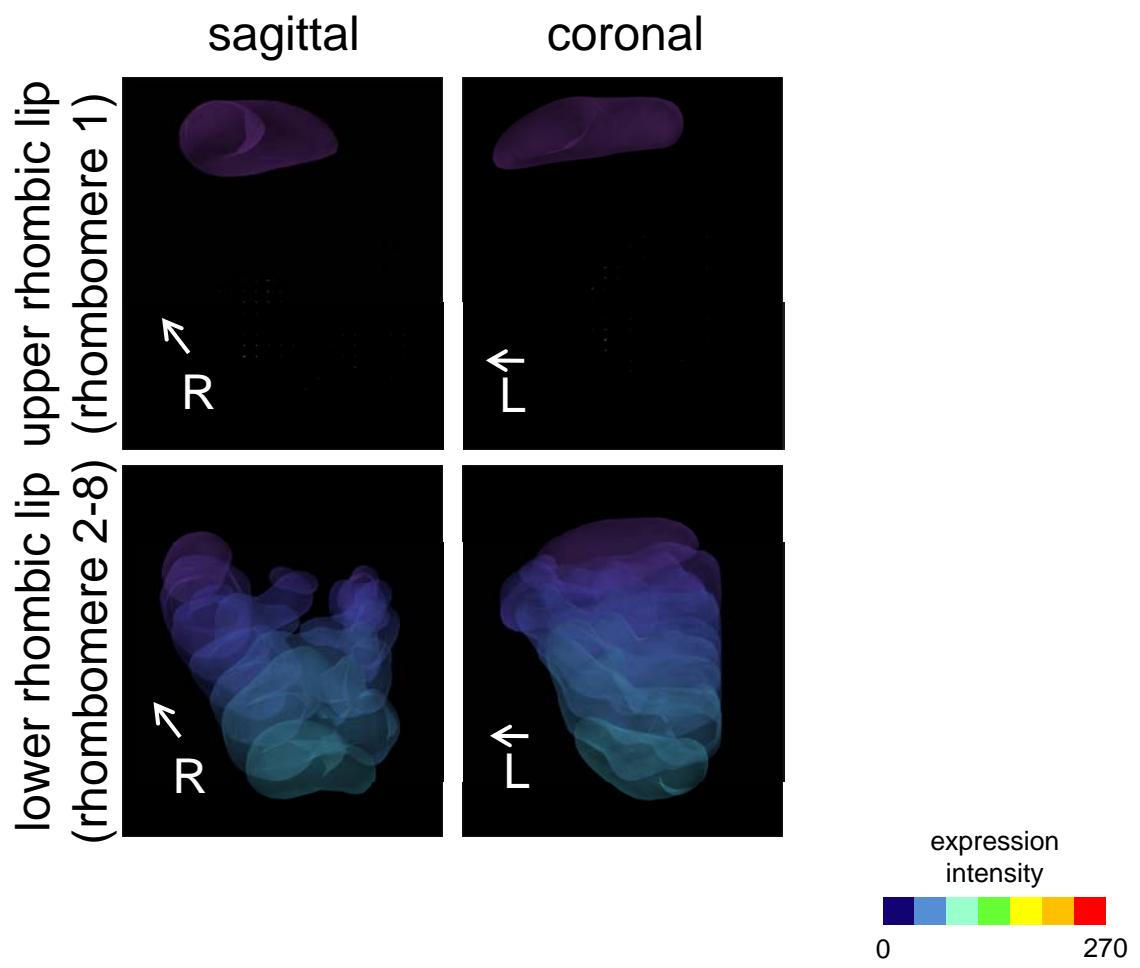
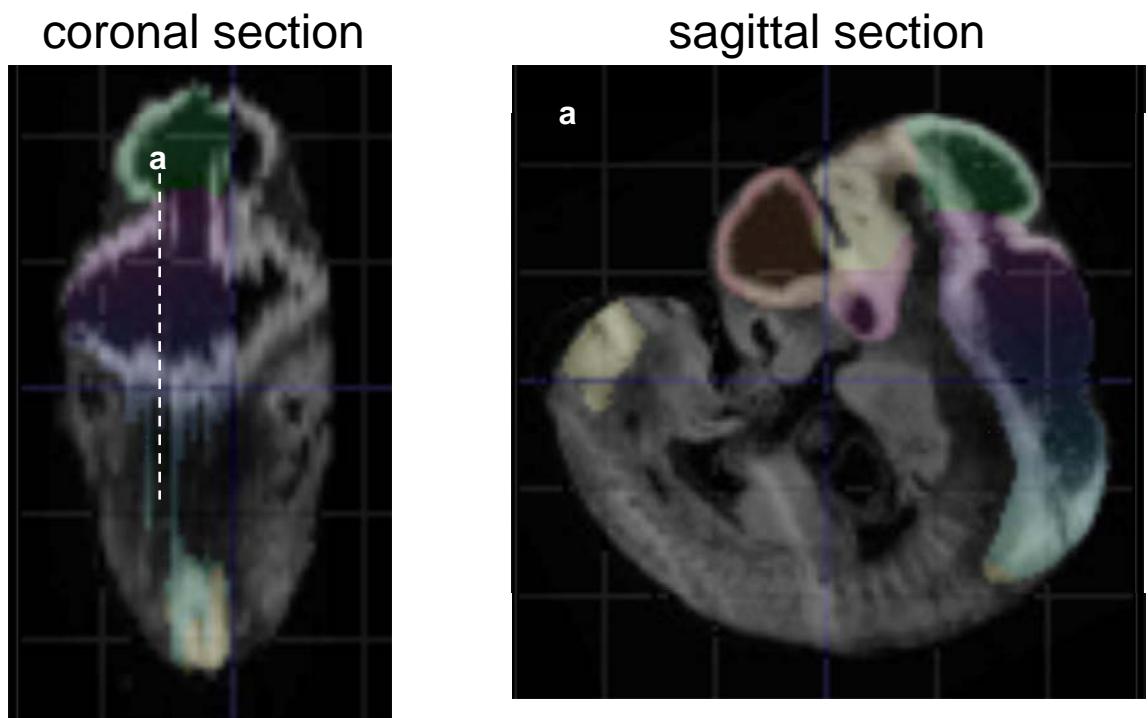
E13.5



E15.5

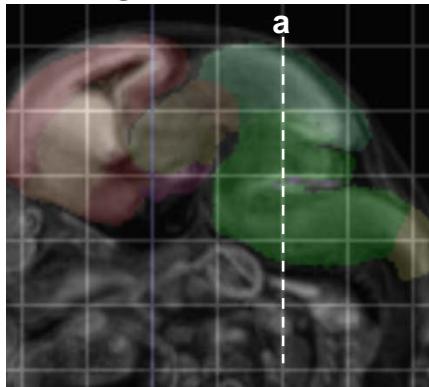


WNT-subgroup gene: *Tph1*, Tryptophan hydroxylase 1 (E11.5)

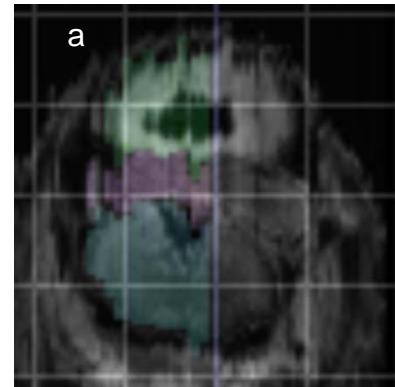


## WNT-subgroup gene: *Tph1*, Tryptophan hydroxylase 1 (E15.5)

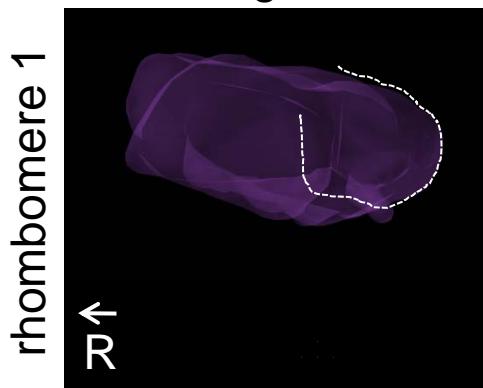
sagittal section



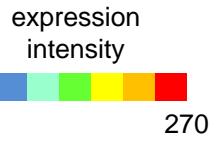
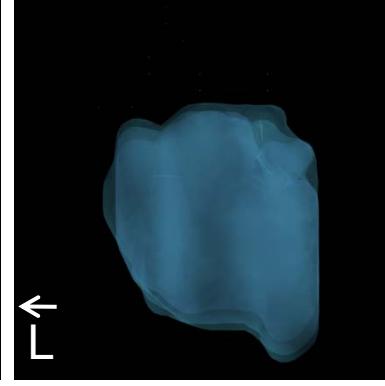
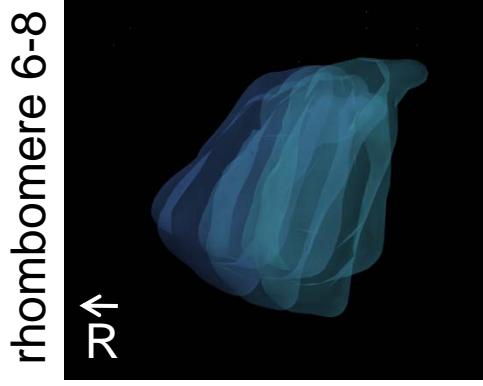
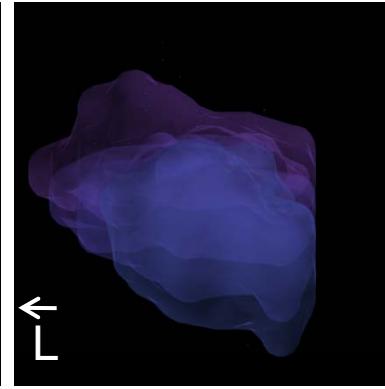
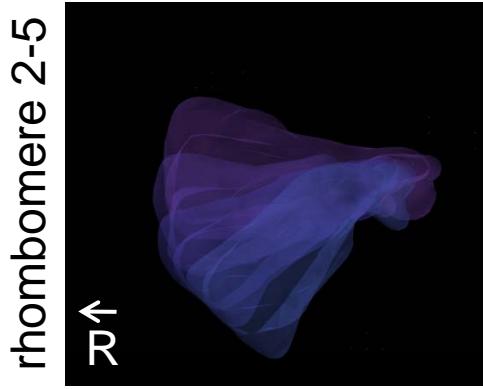
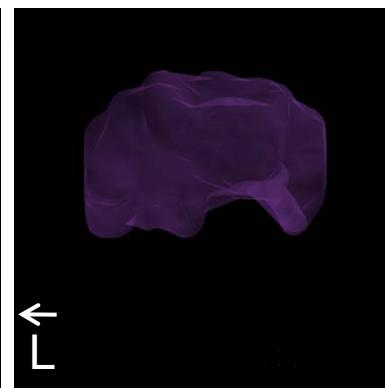
coronal section



sagittal



coronal

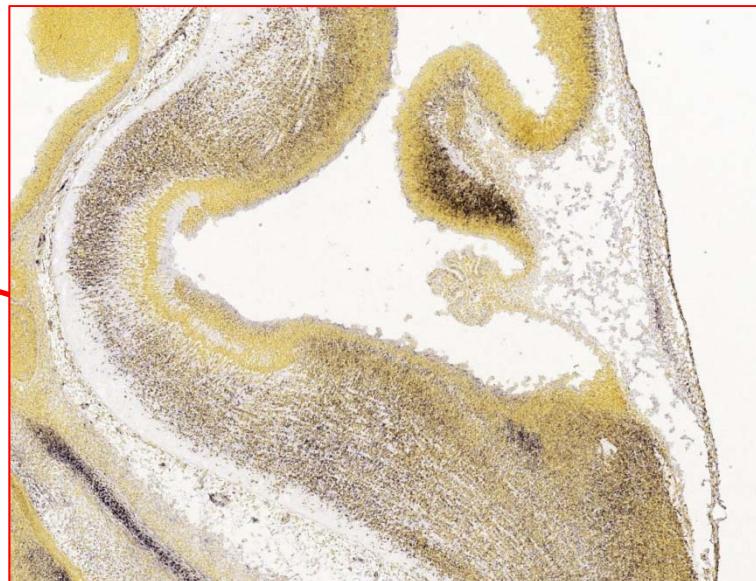


## WNT-subgroup gene: *Lbh*, Limb-bud and heart (*in situ*)

E11.5



E13.5

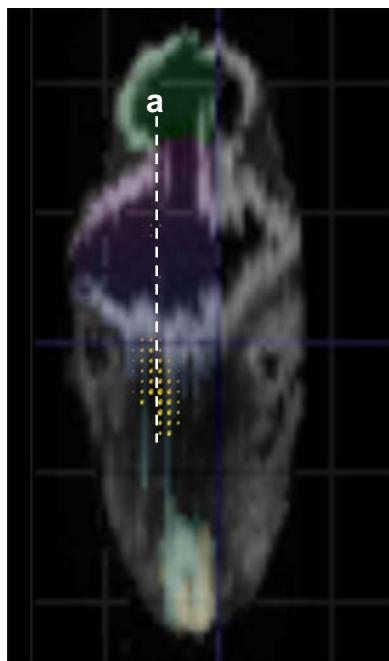


E15.5

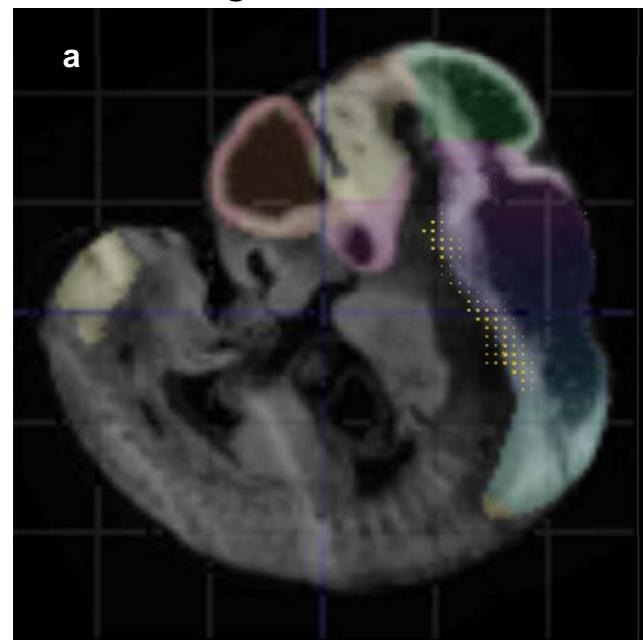


WNT-subgroup gene: *Lbh*, Limb-bud and heart (E11.5)

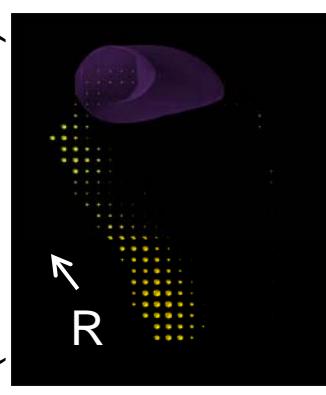
## coronal section



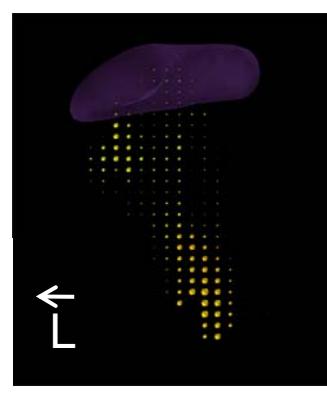
## sagittal section



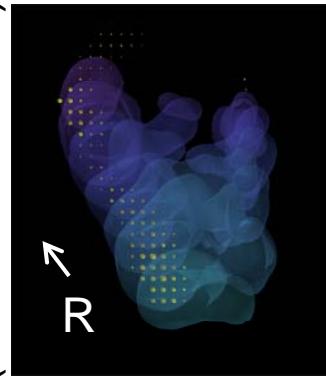
## sagittal



## coronal



lower rhombic lip upper rhombic lip  
(rhombomere 2-8) (rhombomere 1)

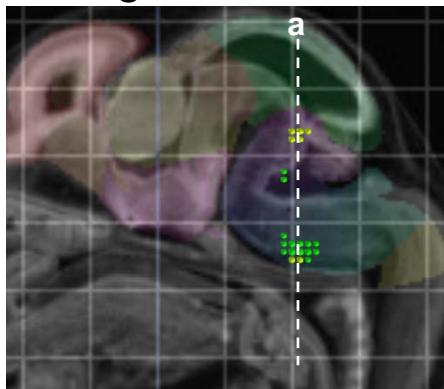


expression  
intensity

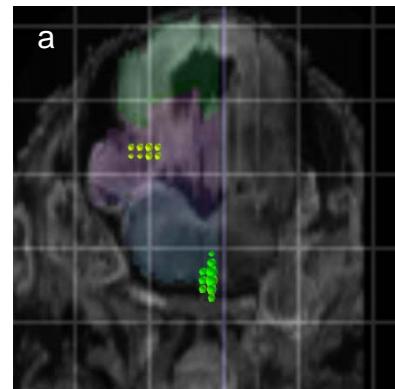


## WNT-subgroup gene: *Lbh*, Limb-bud and heart (E15.5)

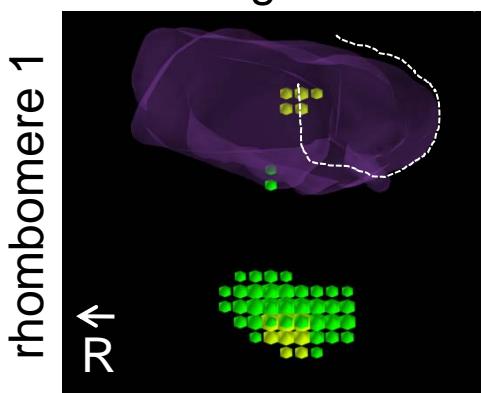
sagittal section



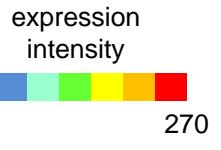
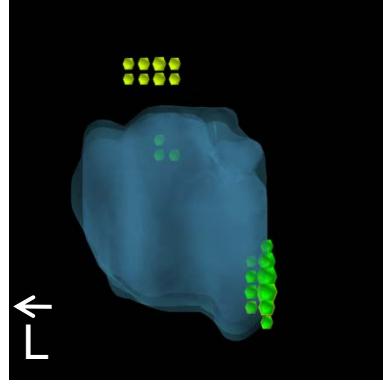
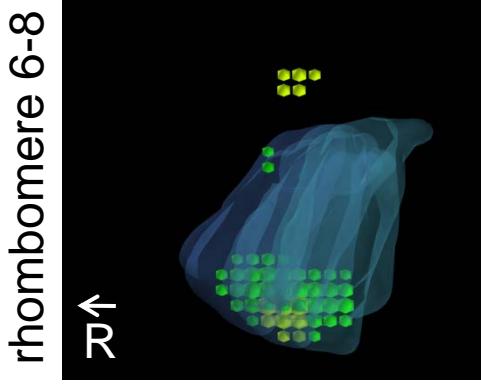
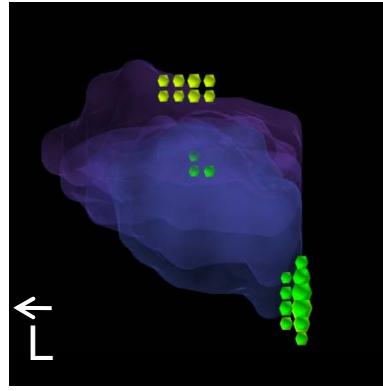
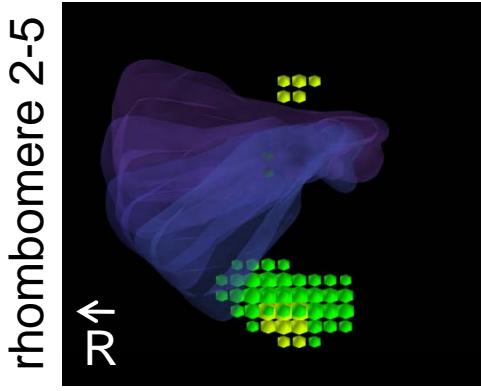
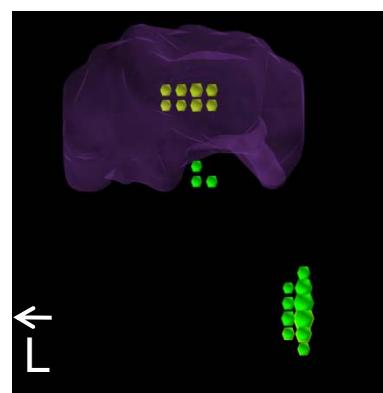
coronal section



sagittal

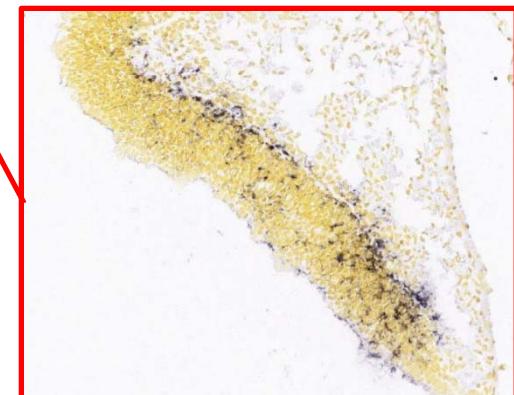


coronal

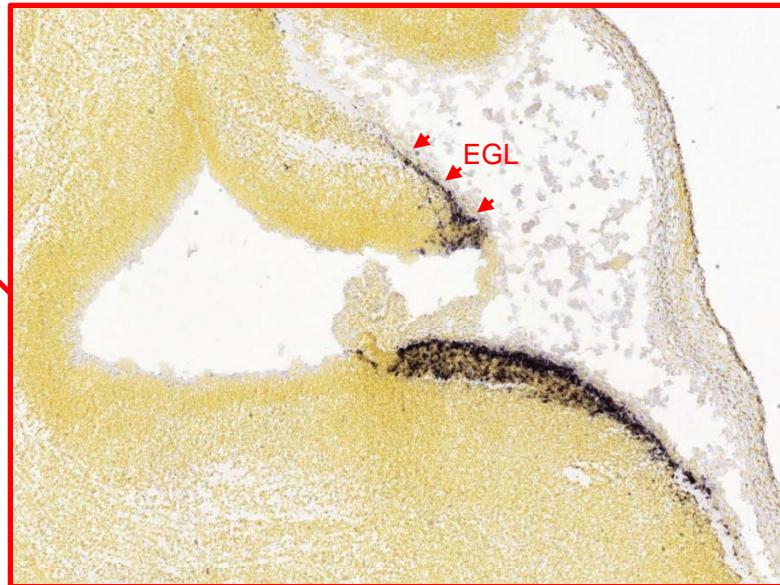


## SHH-subgroup gene: *Atoh1*, Atonal (*in situ*)

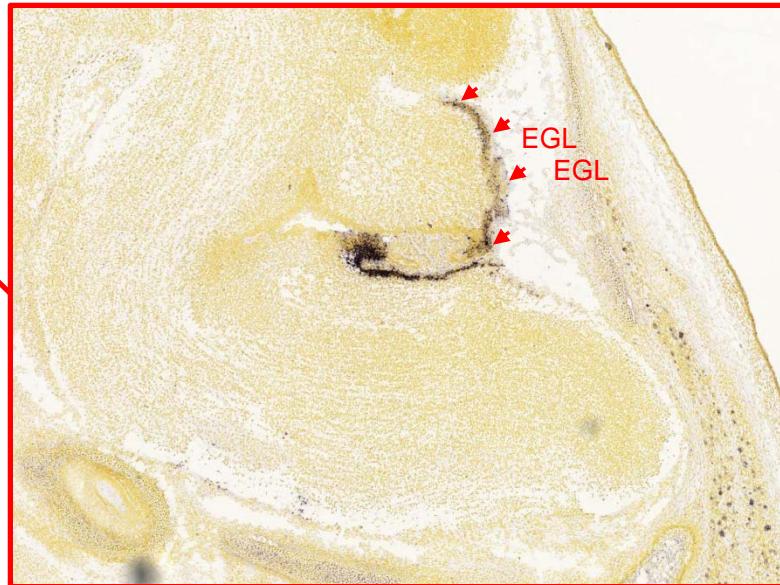
E11.5



E13.5

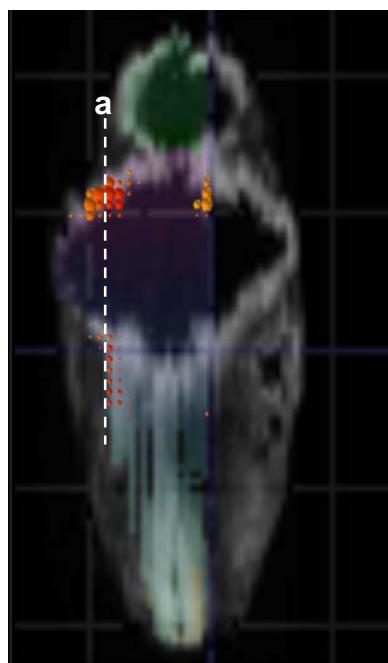


E15.5

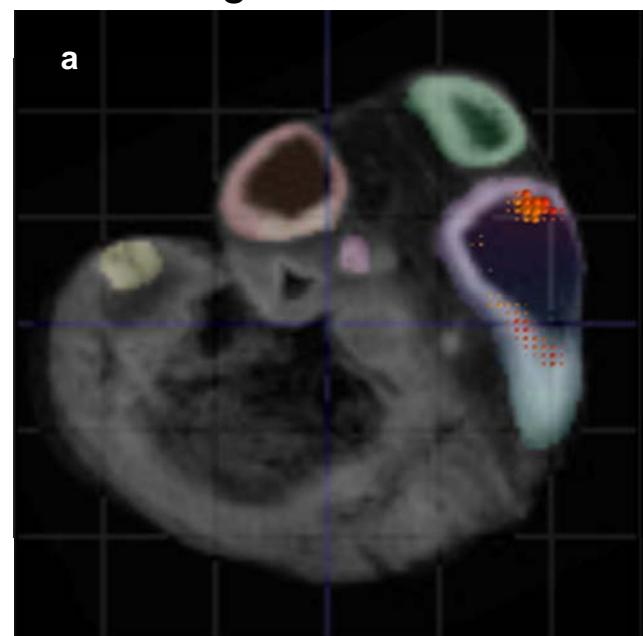


SHH-subgroup gene: *Atoh1*, Atonal (E11.5)

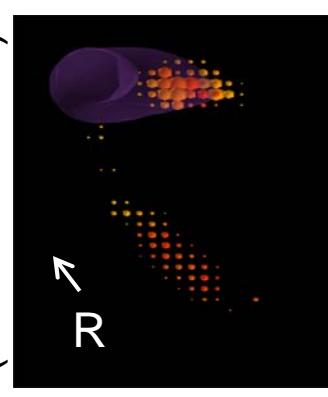
## coronal section



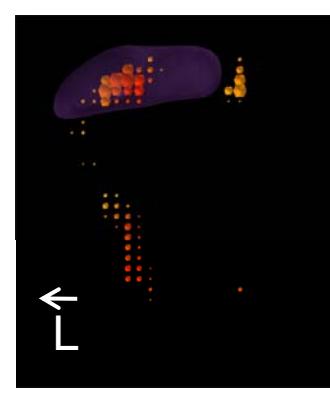
## sagittal section



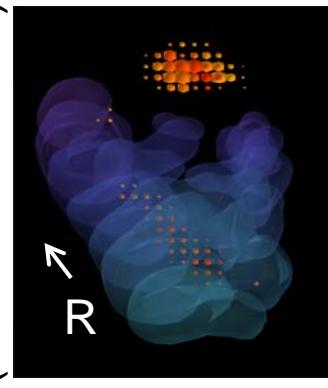
## sagittal



## coronal



lower rhombic lip upper rhombic lip  
(rhombomere 2-8) (rhombomere 1)

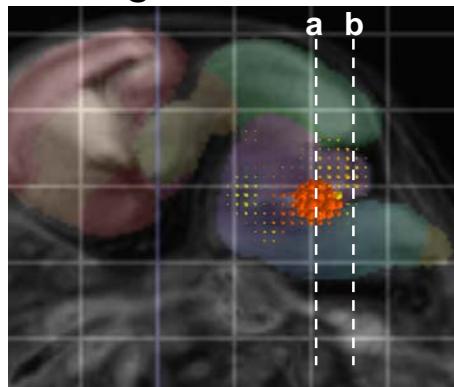


expression  
intensity

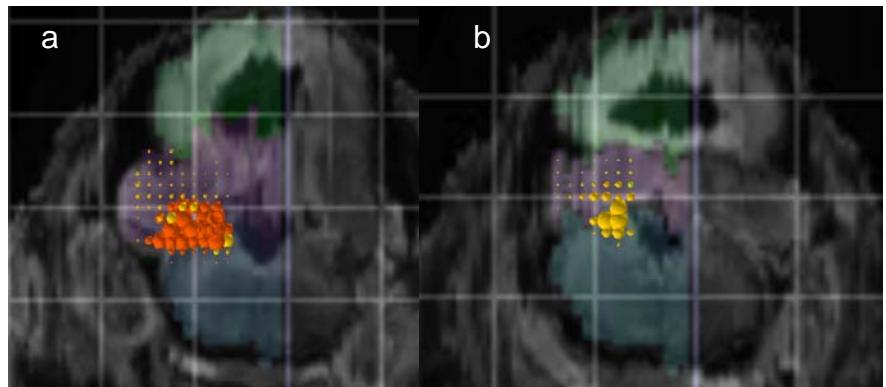
0 270

SHH-subgroup gene: *Atoh1*, Atonal (E15.5)

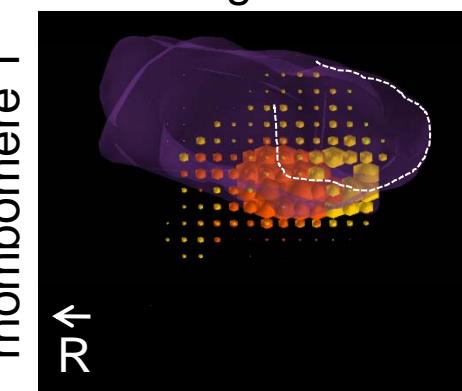
## sagittal section



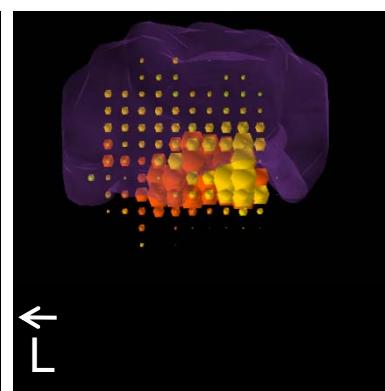
## coronal sections



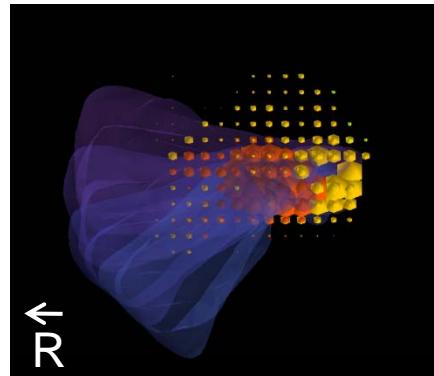
## sagittal



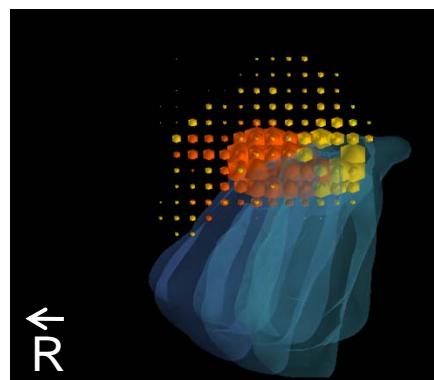
## coronal



rhombomere 2-5



rhombomere 6-8



expression intensity

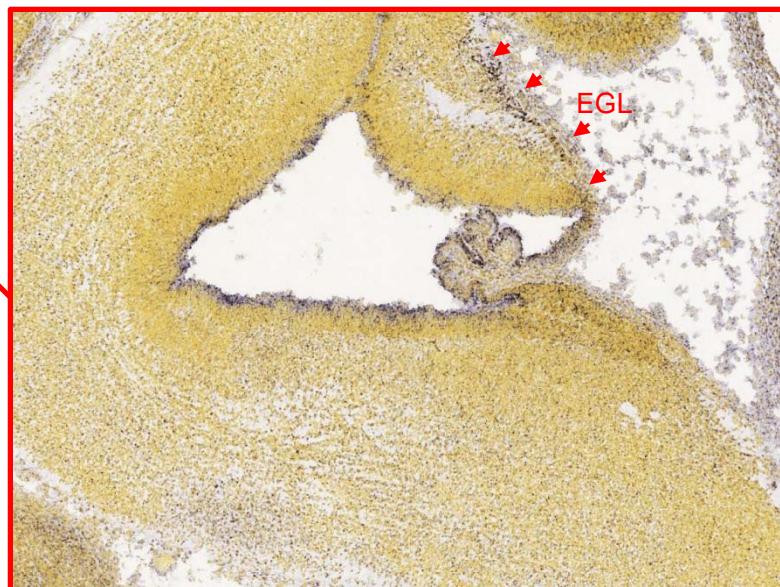
270

## SHH-subgroup gene: *Plxnb2*, Plexin B2 (*in situ*)

E11.5



E13.5

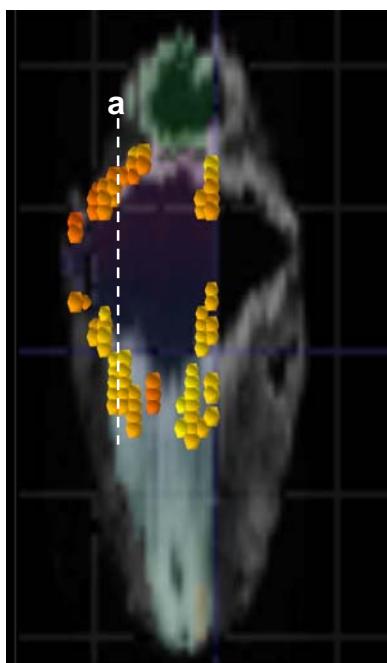


E15.5

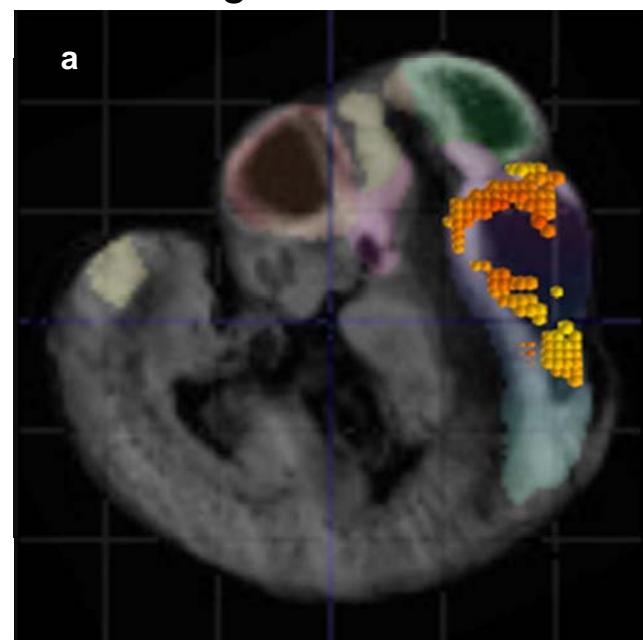


## SHH-subgroup gene: *Plxnb2*, Plexin B2 (E11.5)

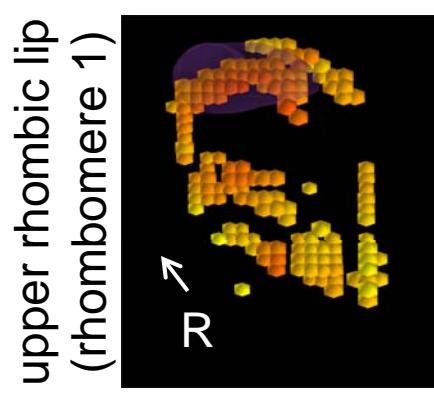
coronal section



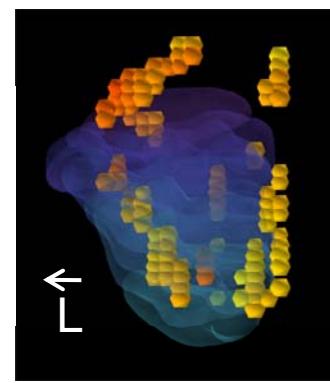
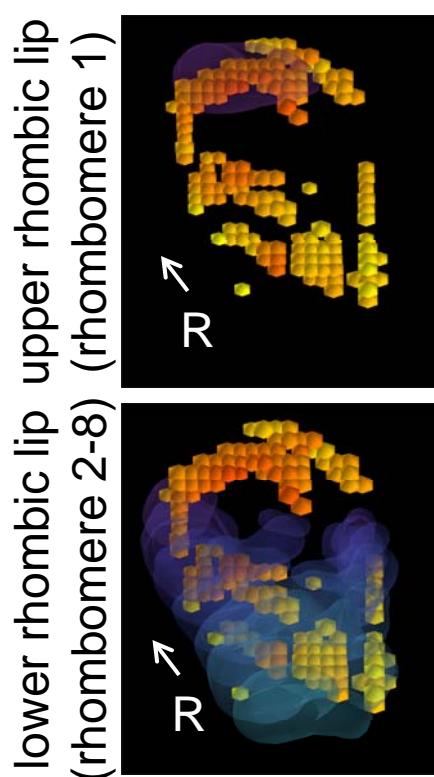
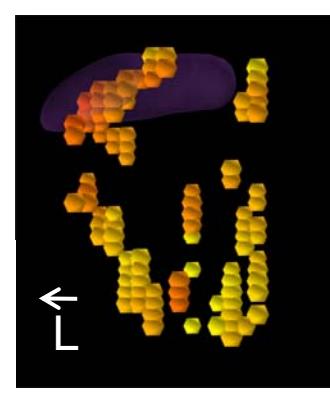
sagittal section



sagittal



coronal



expression intensity

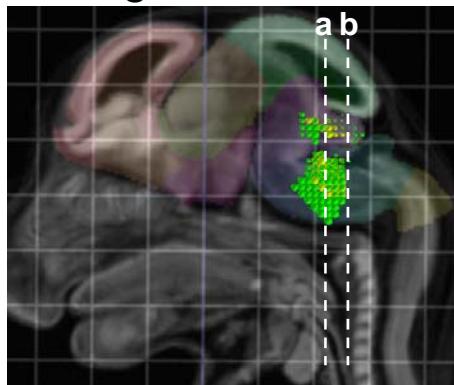


0

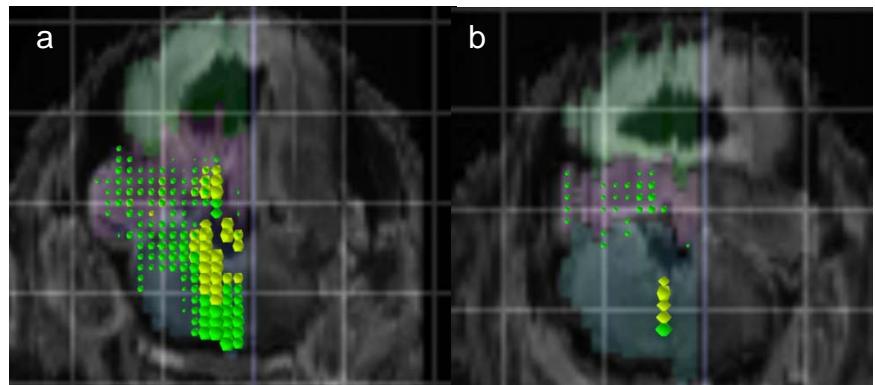
270

SHH-subgroup gene: *Plxnb2*, Plexin B2 (E15.5)

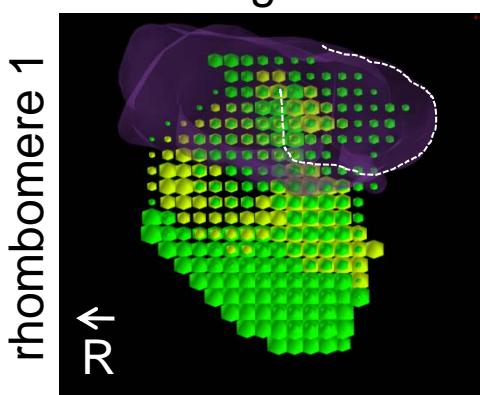
## sagittal section



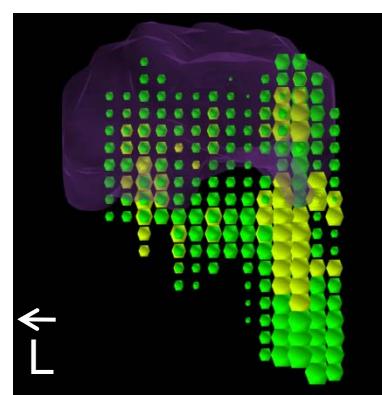
## coronal sections



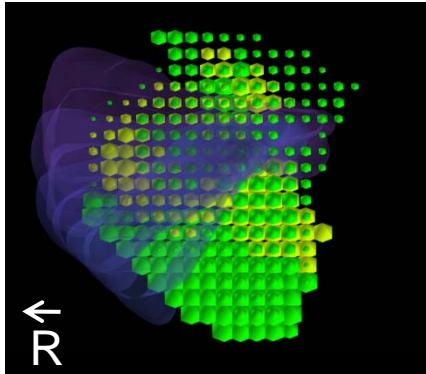
sagittal



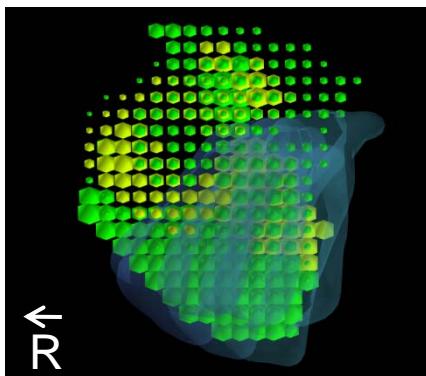
## coronal



rhombomere 2-5



rhombomerie 6-8

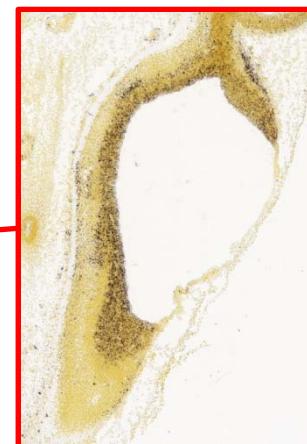


expression  
intensity

A horizontal color bar consisting of seven equal-width rectangular segments. The colors transition from dark blue on the left to light blue, cyan, green, yellow, orange, and finally red on the right.

SHH-subgroup gene: *Cxcr4*, Chemokine c-x-c receptor 4 (*in situ*)

E11.5



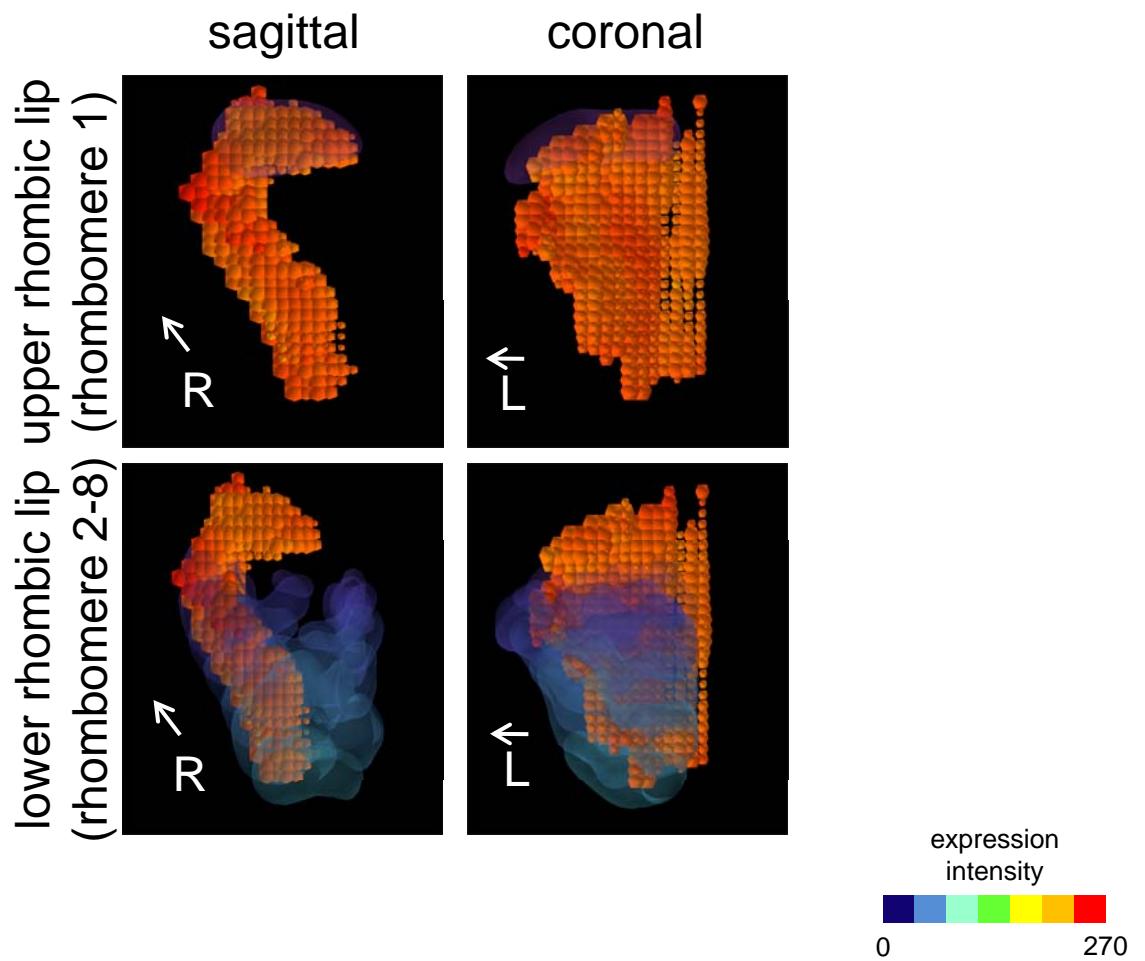
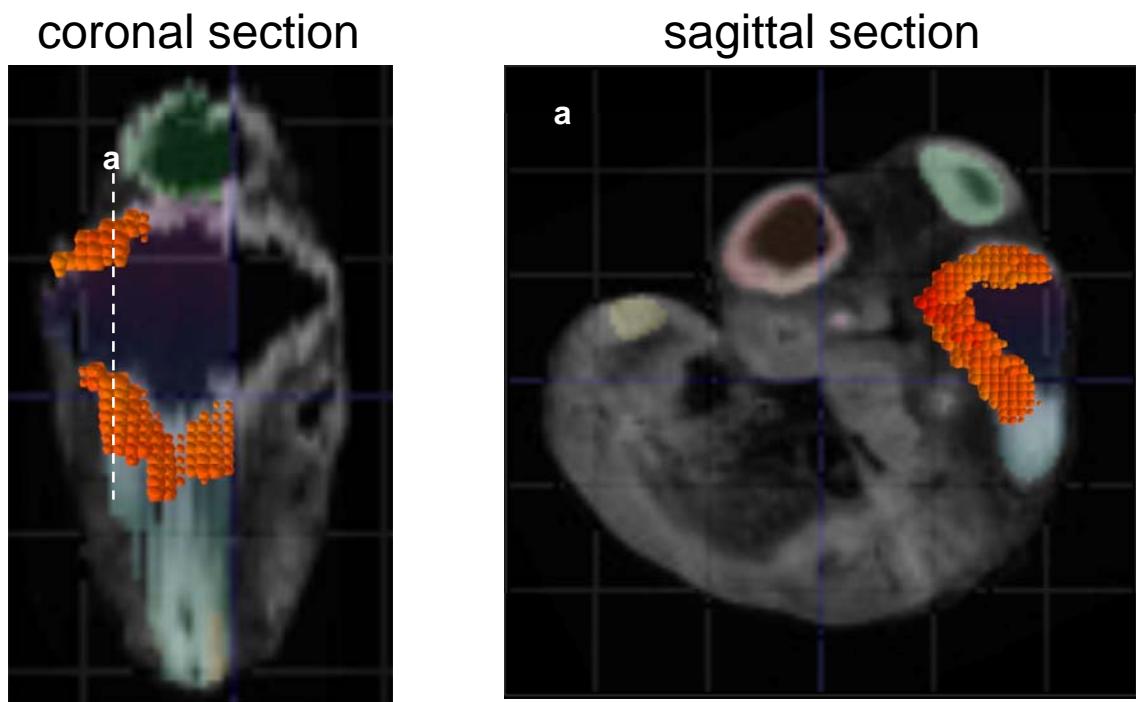
E13.5



E15.5

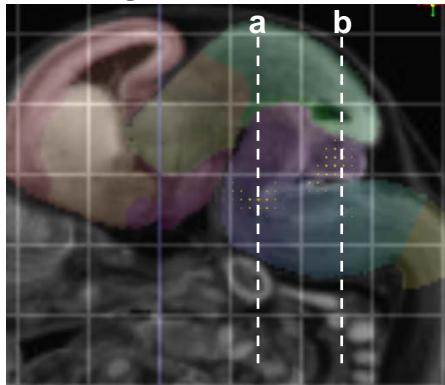


## SHH-subgroup gene: *Cxcr4*, Chemokine c-x-c receptor 4 (E11.5)

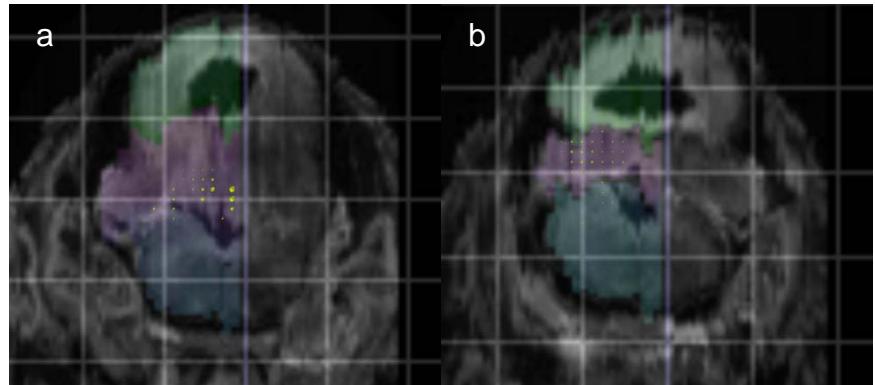


SHH-subgroup gene: *Cxcr4*, Chemokine c-x-c receptor 4 (E15.5)

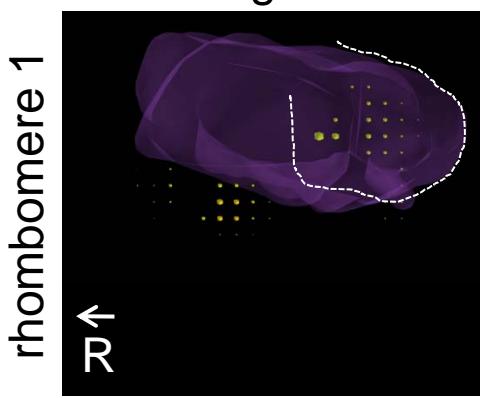
## sagittal section



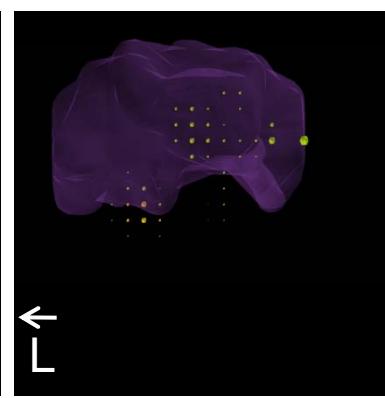
## coronal sections



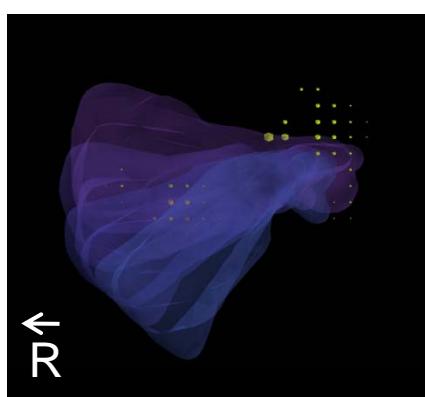
## sagittal



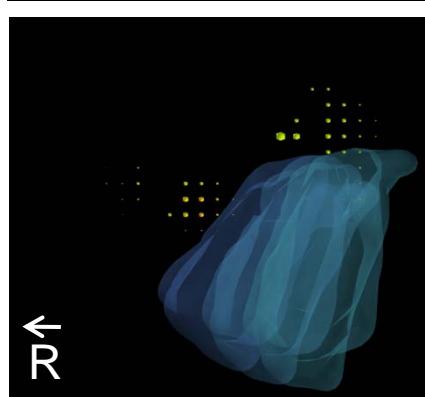
## coronal



rhombo mere 2-5



rhombomerie 6-8

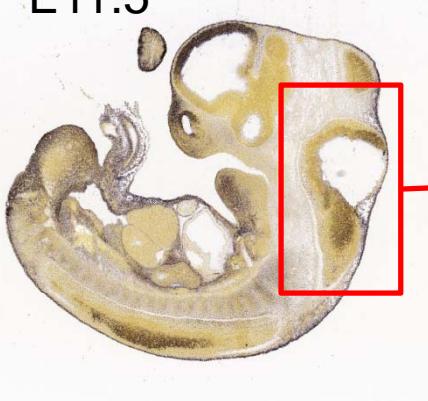


A 3D reconstruction of a brain slice, likely a T1-weighted MRI scan, showing a large, irregularly shaped lesion. The lesion is highlighted in blue and has a complex, lobulated internal structure. A series of yellow dots is overlaid on the top surface of the lesion, forming a grid pattern. A white arrow points to the bottom left corner of the image.

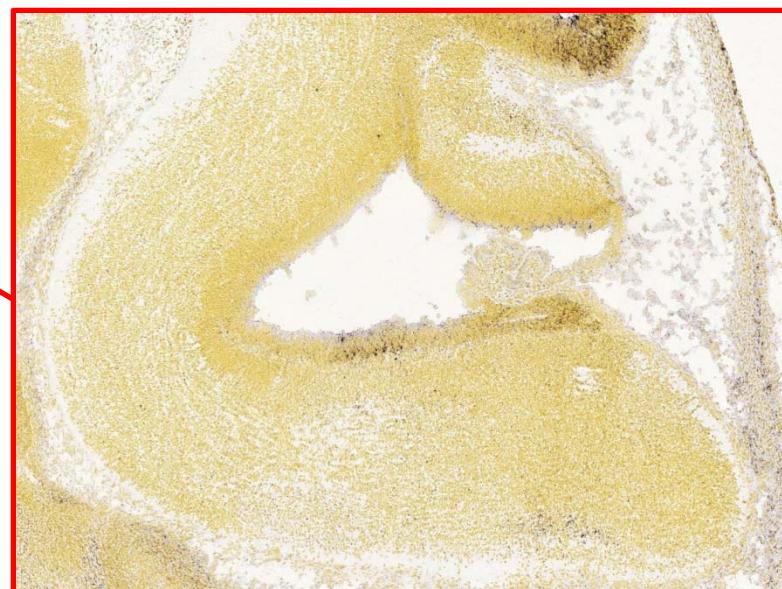
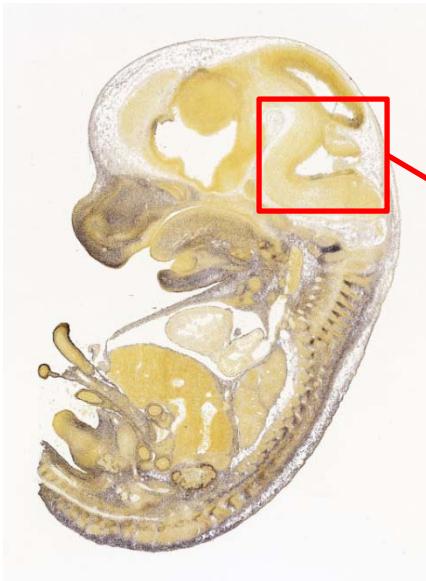
A heatmap visualization titled "expression intensity" showing a grid of 270 cells. The color scale ranges from blue (low intensity) to red (high intensity). The grid consists of 10 columns and 27 rows.

## SHH-subgroup gene: *Gas1*, Growth arrest specific 1 (*in situ*)

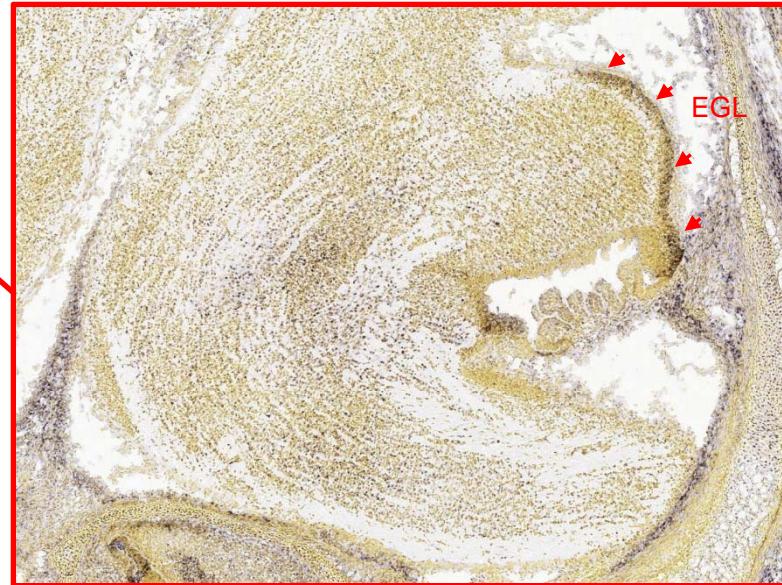
E11.5



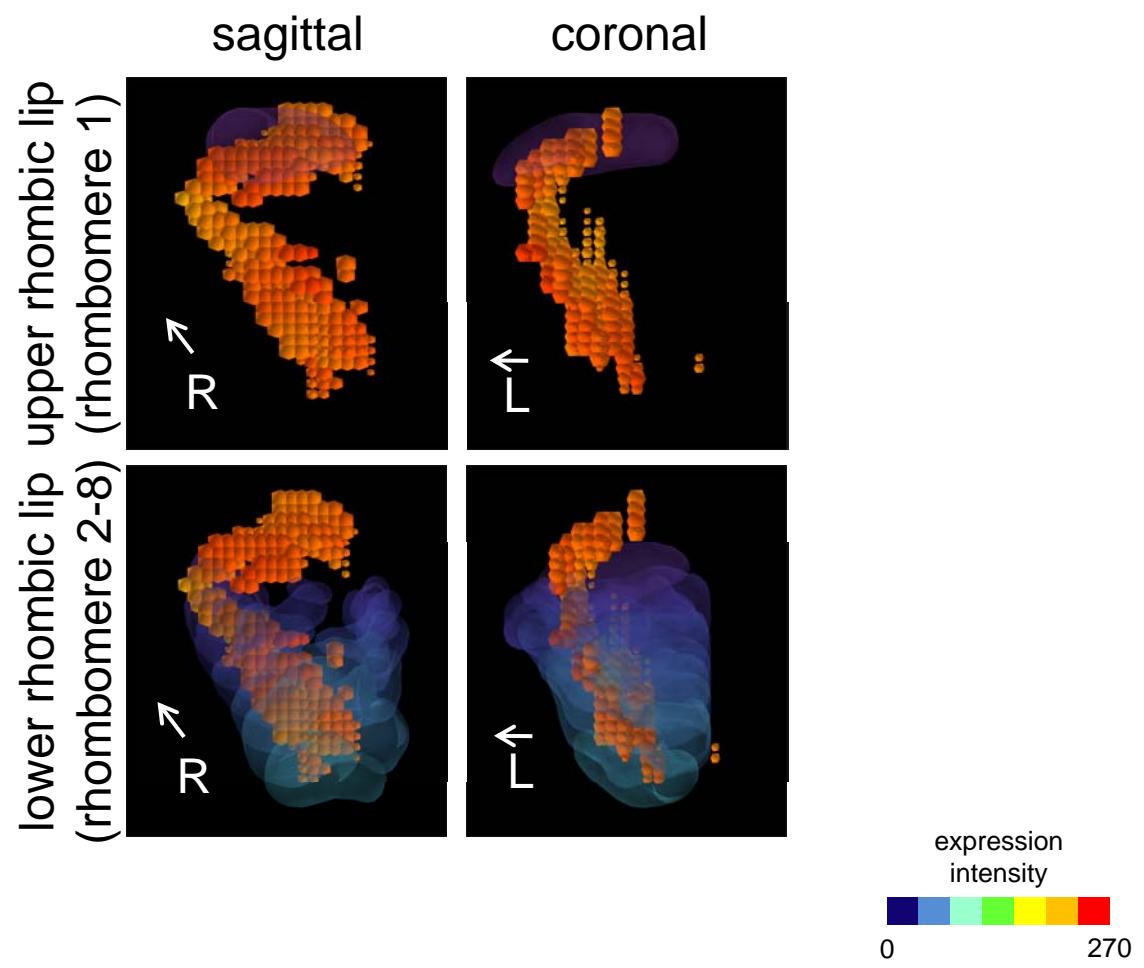
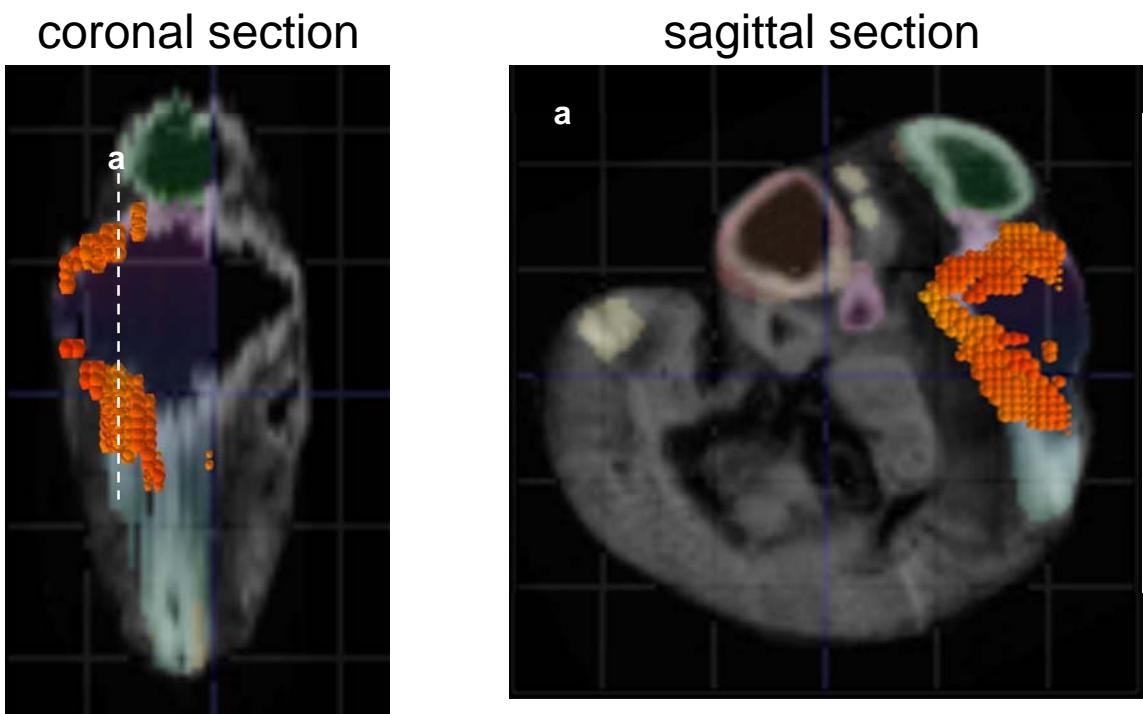
E13.5



E15.5

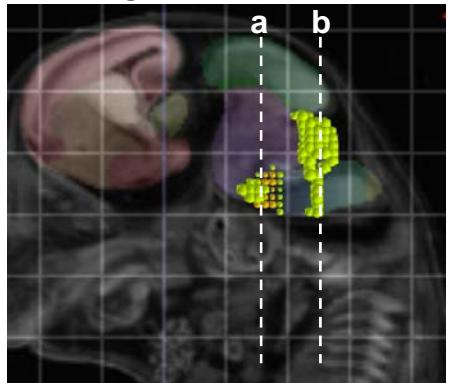


## SHH-subgroup gene: *Gas1*, Growth arrest specific 1 (E11.5)

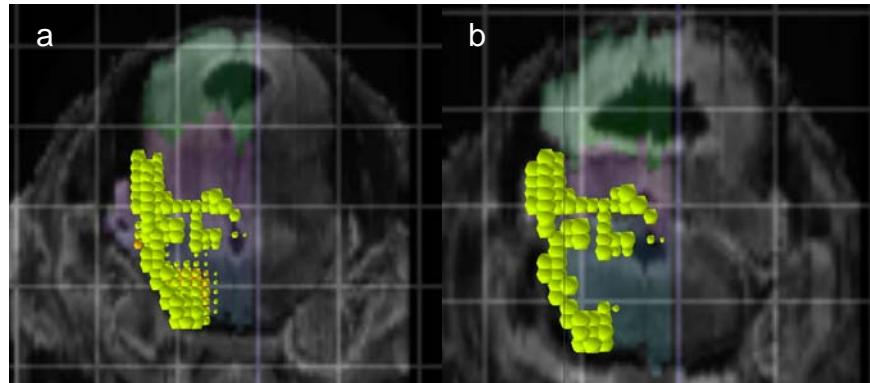


SHH-subgroup gene: *Gas1*, Growth arrest specific 1 (E15.5)

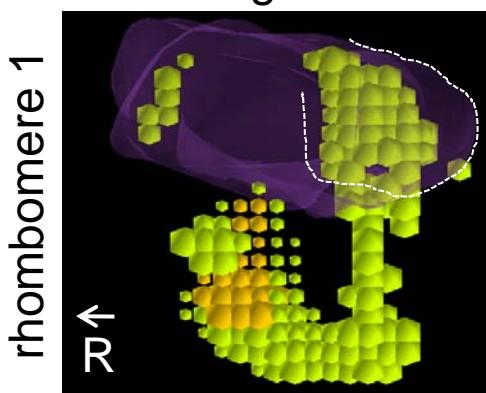
## sagittal section



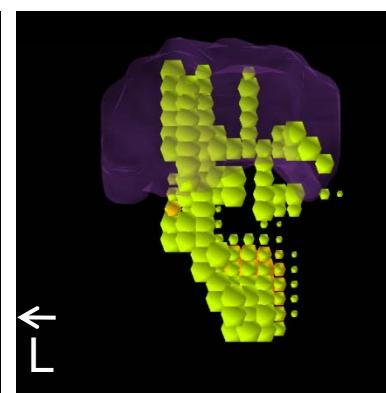
## coronal sections



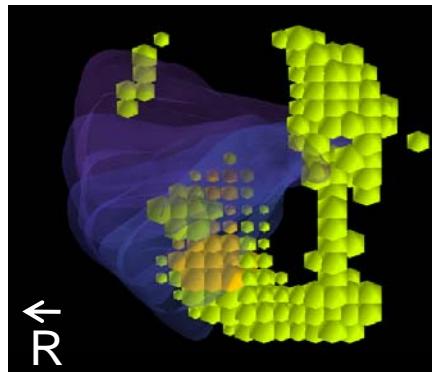
## sagittal



## coronal

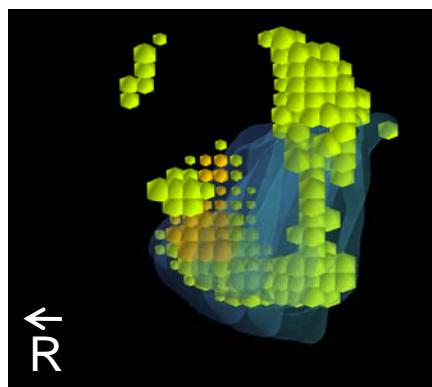


rhomboheme 2-5



A 3D surface plot representing a protein structure. The surface is composed of numerous small, semi-transparent yellow cubes arranged in a grid-like pattern. These cubes are primarily concentrated on the right side of the protein, forming a distinct cluster. The background is a dark purple color, which provides a strong contrast to the yellow cubes. In the bottom left corner of the image, there is a white L-shaped arrow pointing upwards and to the left, likely indicating a viewing angle or axis.

rhombohere 6-8



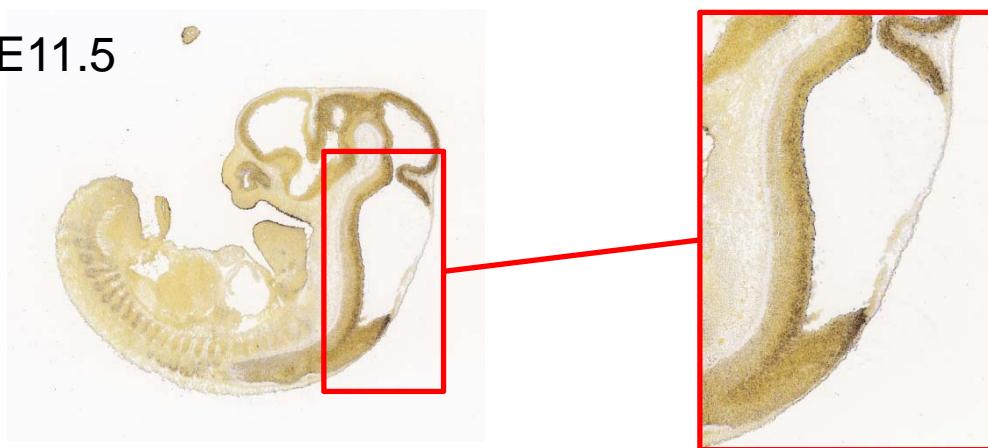
A 3D reconstruction of a heart, likely a CT scan or MRI reconstruction, displayed against a black background. The heart is shown from a slightly elevated front-left perspective. A semi-transparent blue mesh covers the entire heart, and numerous small yellow cubes are placed on specific anatomical structures, such as the atria, ventricles, and major blood vessels, to indicate points of interest or measurement.

expression intensity

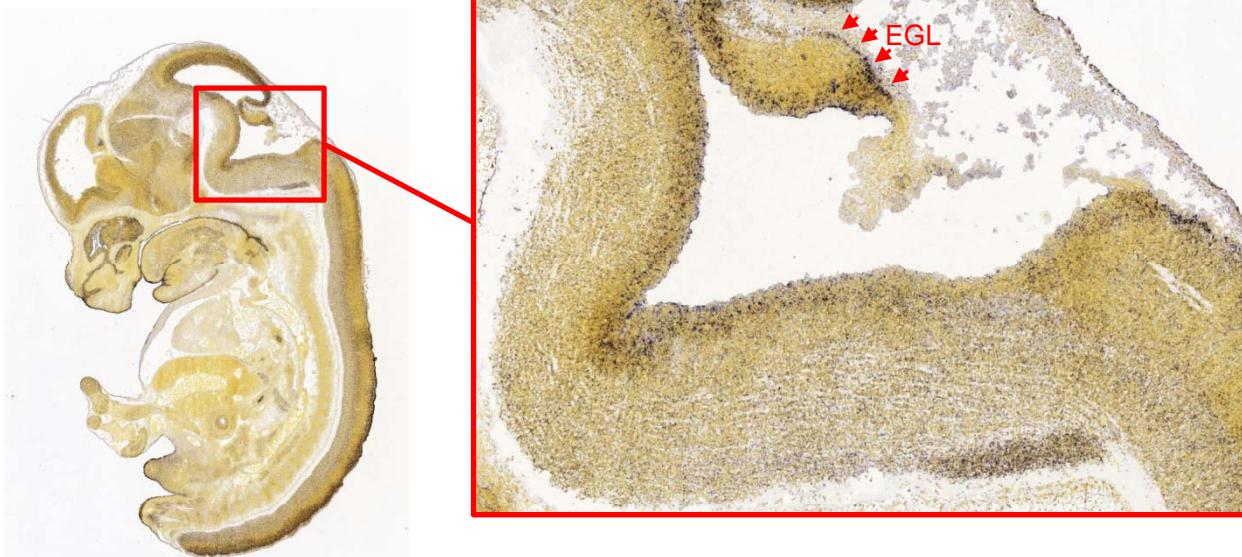
270

## SHH-subgroup gene: *Mycl1*, v-myc myelocytomatosis 1 (*in situ*)

E11.5



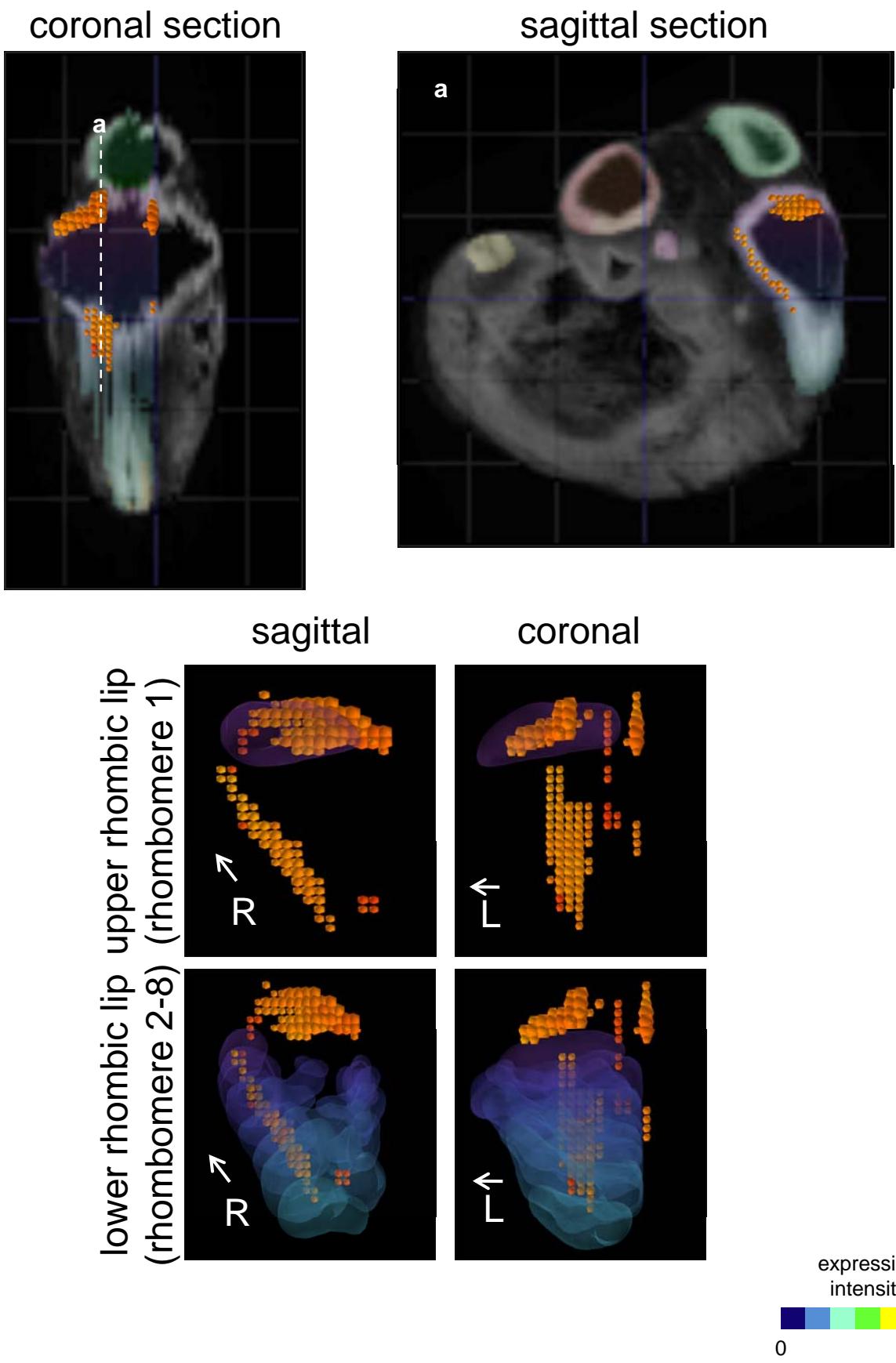
E13.5



E15.5

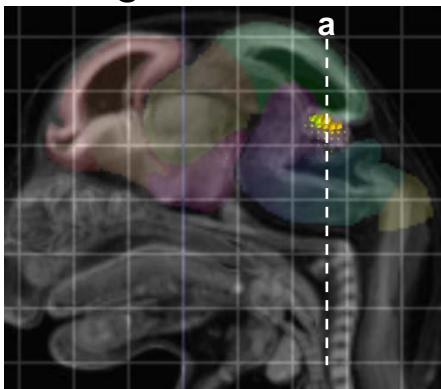


SHH-subgroup gene: *Mycl1*, v-myc myelocytomatosis 1 (E11.5)

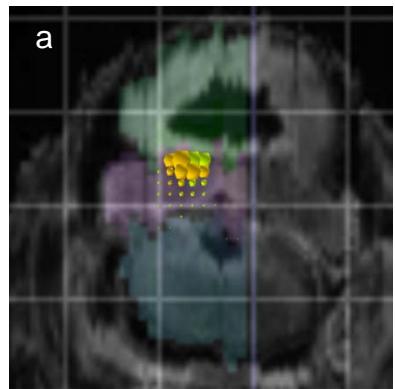


## SHH-subgroup gene: *Mycl1*, v-myc myelocytomatosis 1 (E15.5)

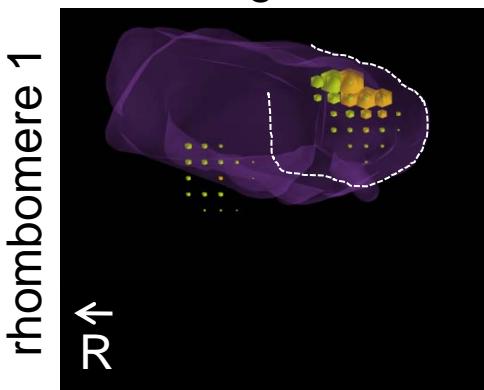
sagittal section



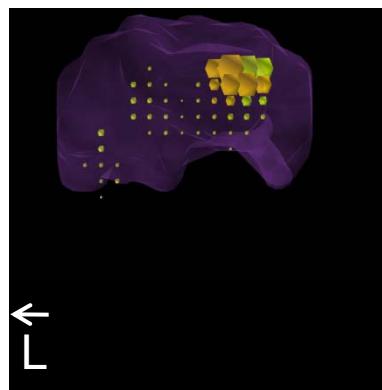
coronal section



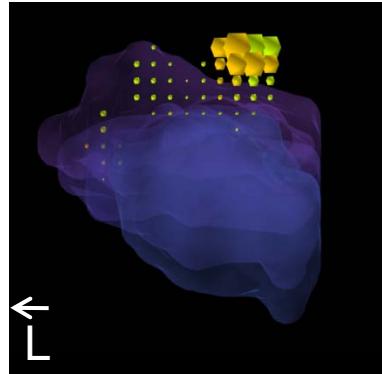
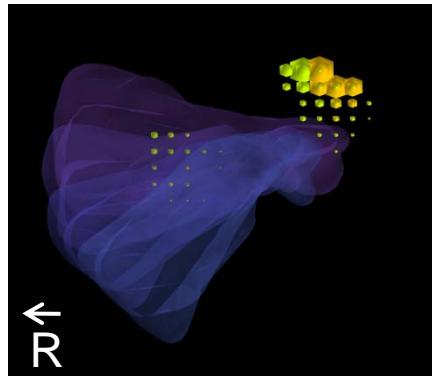
sagittal



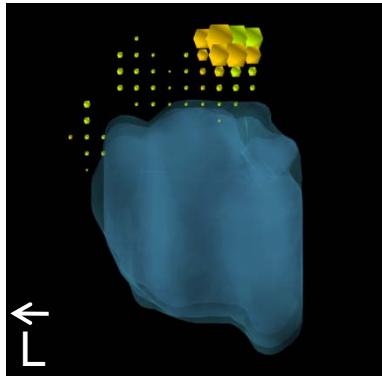
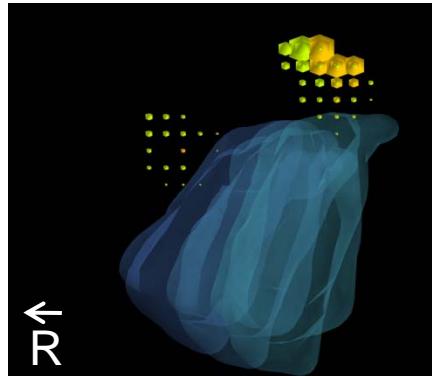
coronal



rhombomere 2-5



rhombomere 6-8

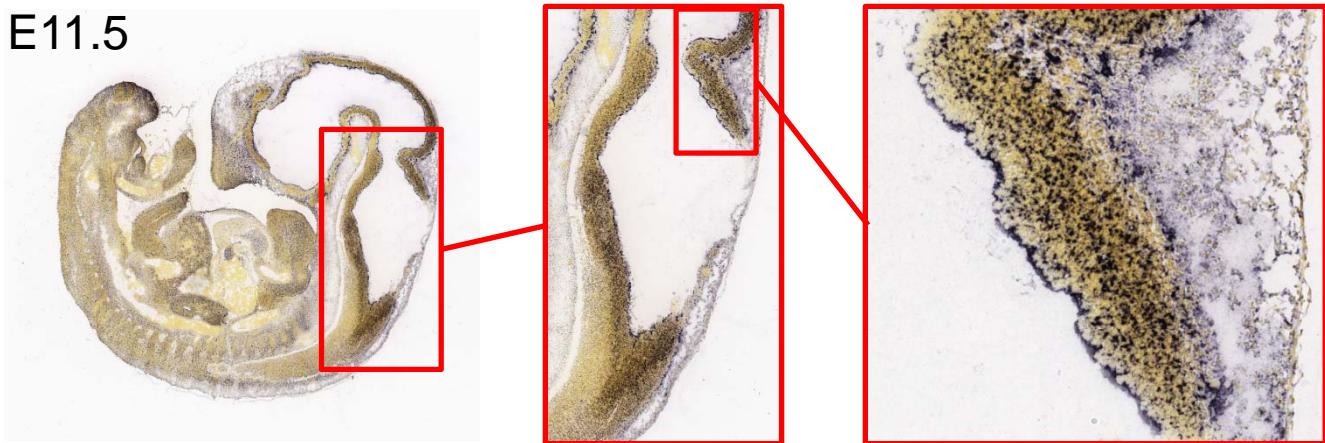


expression  
intensity



## SHH-subgroup gene: *Trim28*, Tripartite motif 28 (*in situ*)

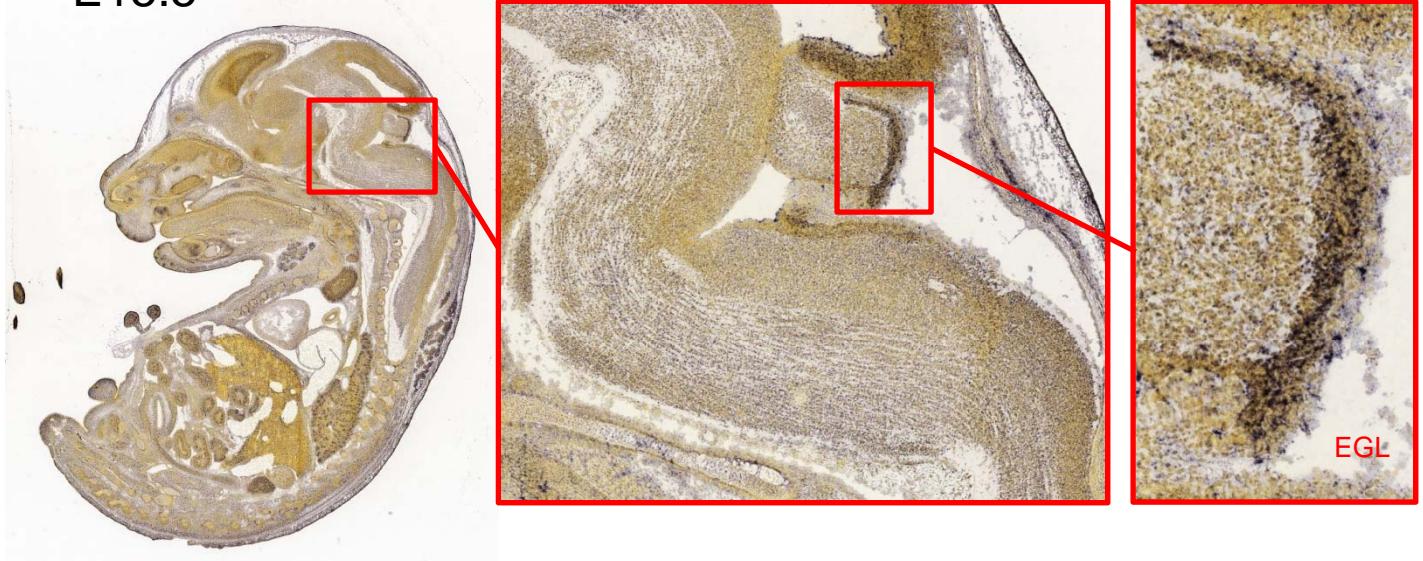
E11.5



E13.5

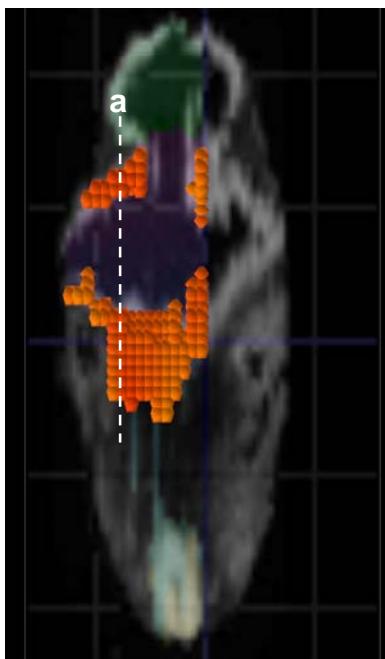


E15.5

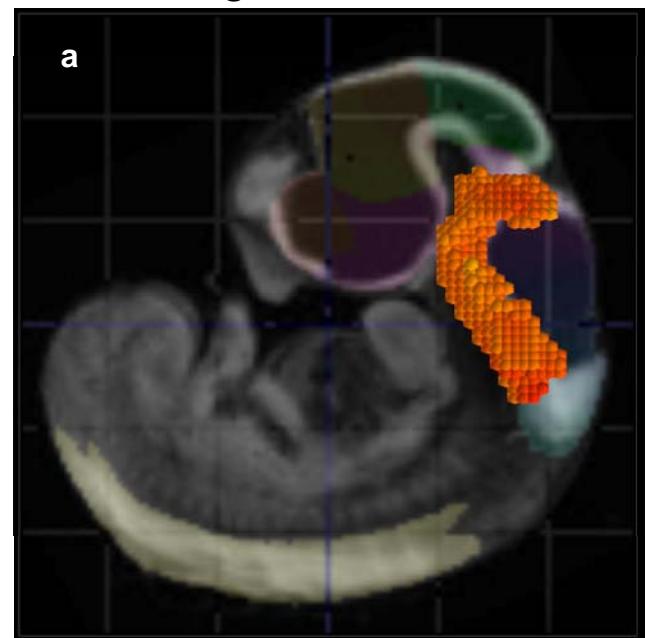


## SHH-subgroup gene: *Trim28*, Tripartite motif 28 (E11.5)

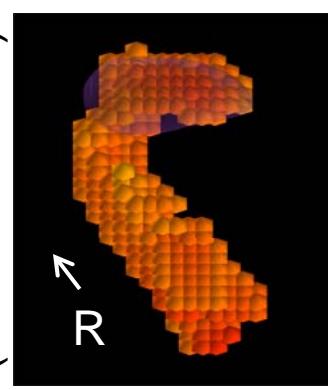
coronal section



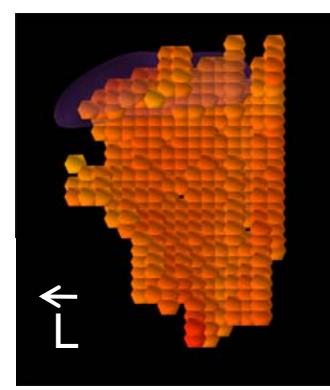
sagittal section



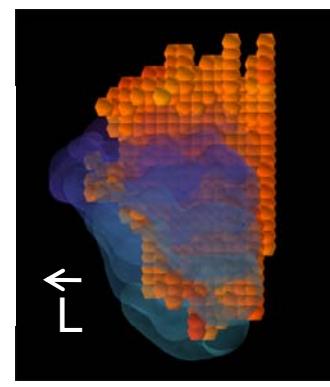
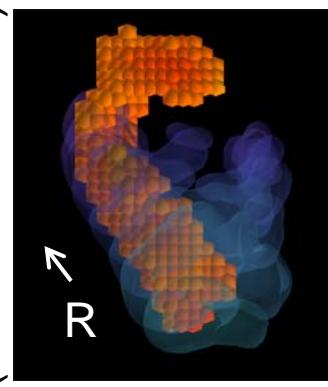
sagittal



coronal



lower rhombic lip upper rhombic lip  
(rhombomere 2-8) (rhombomere 1)



expression intensity

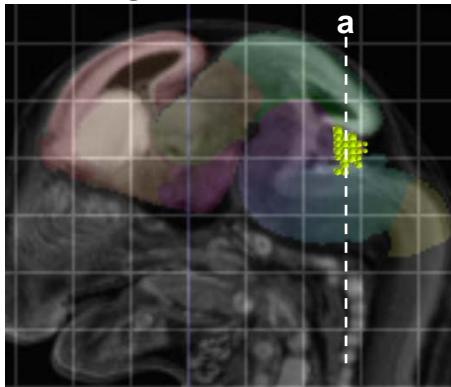


0

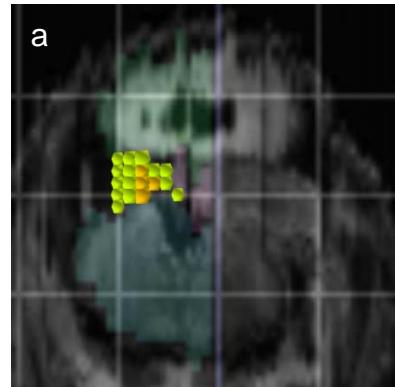
270

## SHH-subgroup gene: *Trim28*, Tripartite motif 28 (E15.5)

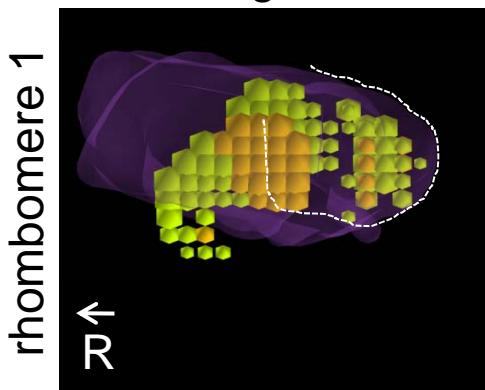
sagittal section



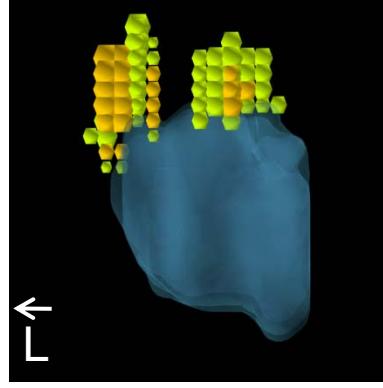
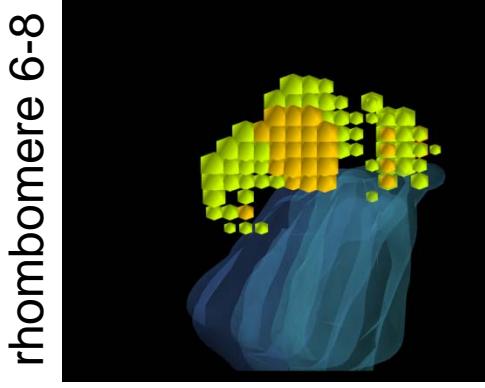
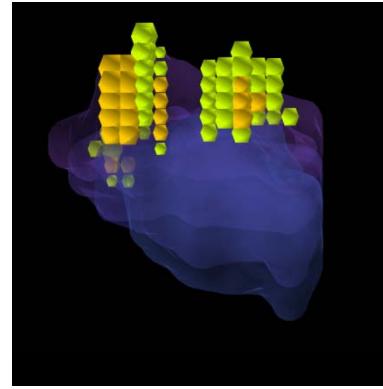
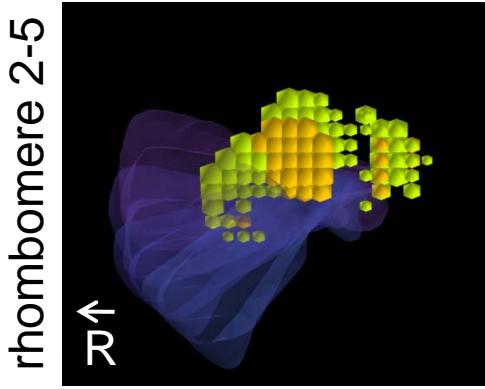
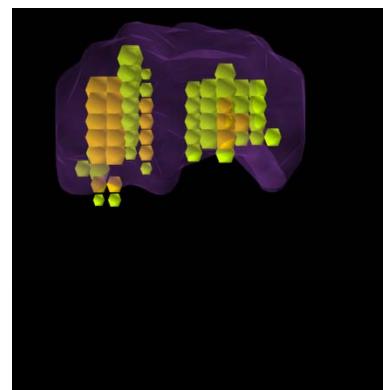
coronal section



sagittal



coronal

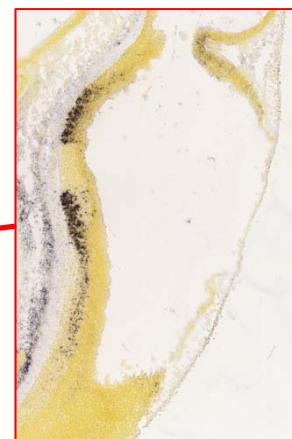


expression  
intensity

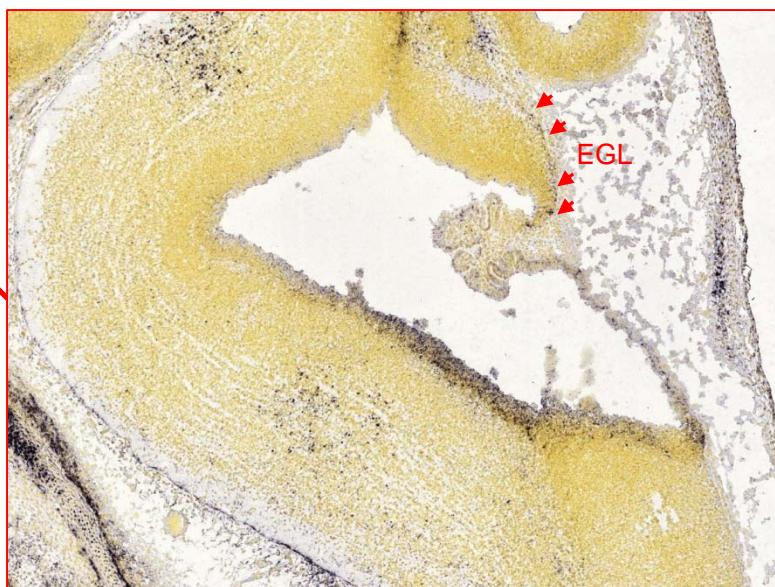
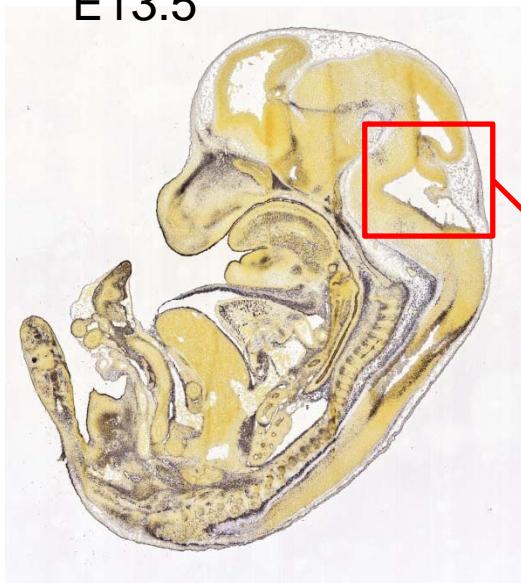


SHH-subgroup gene: *Igfbp5*, Insulin like growth factor binding protein 5 (*in situ*)

E11.5



E13.5

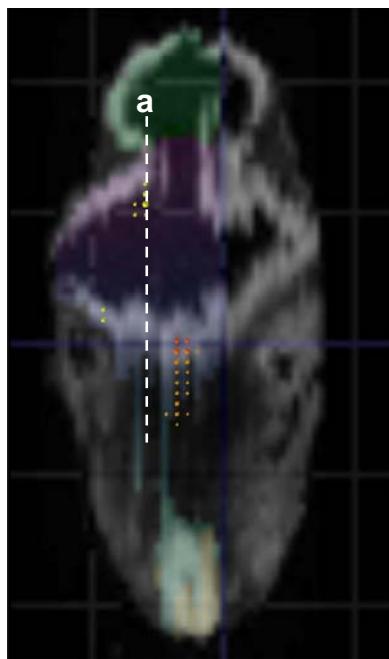


E15.5

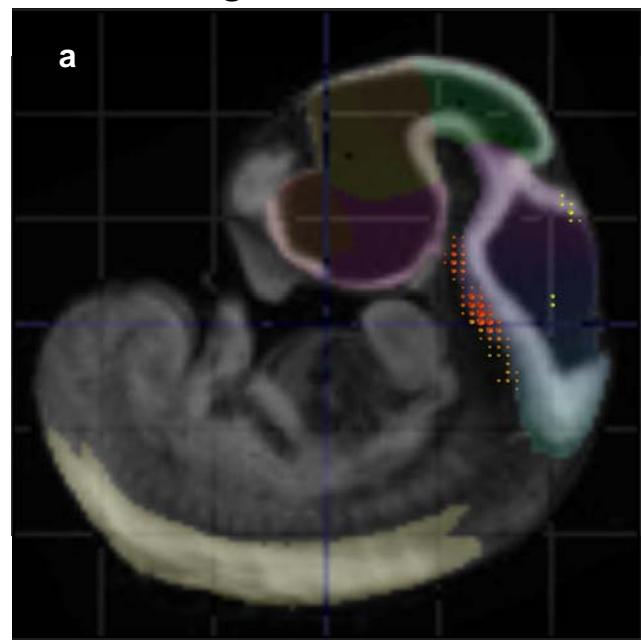


SHH-subgroup gene: *Igfbp5*, Insulin like growth factor binding protein 5 (E11.5)

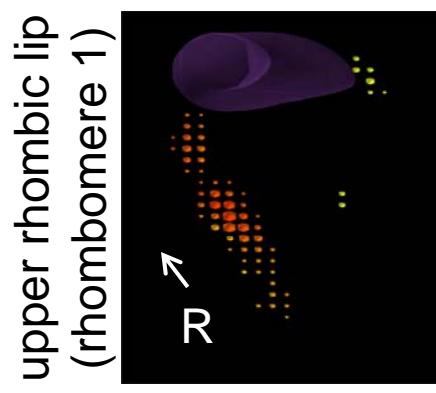
coronal section



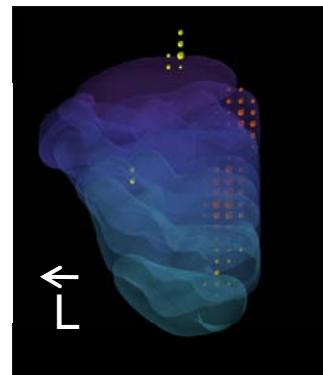
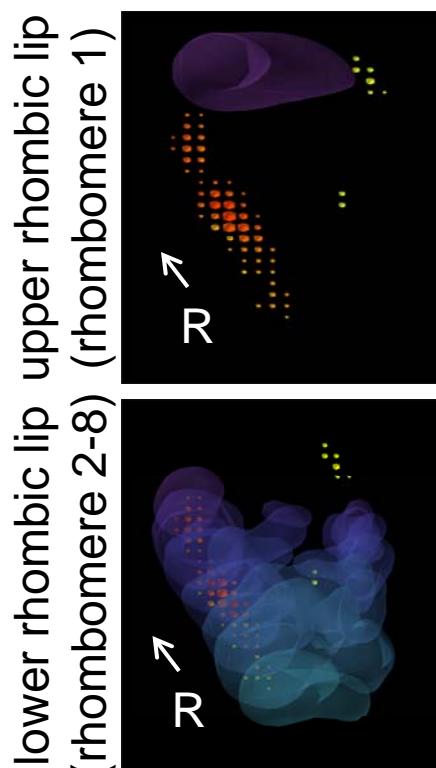
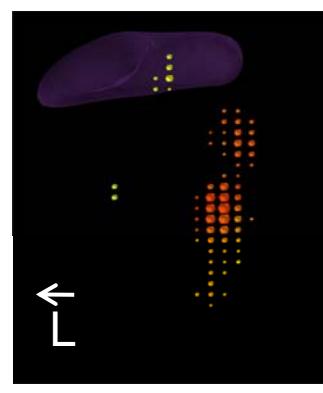
sagittal section



sagittal



coronal

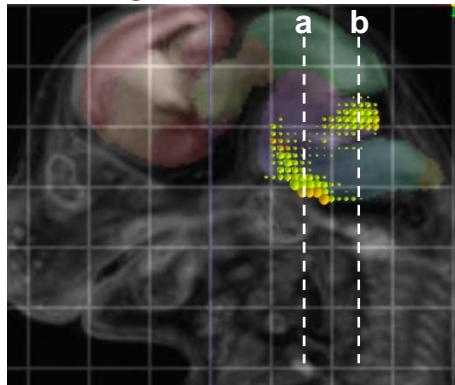


expression intensity

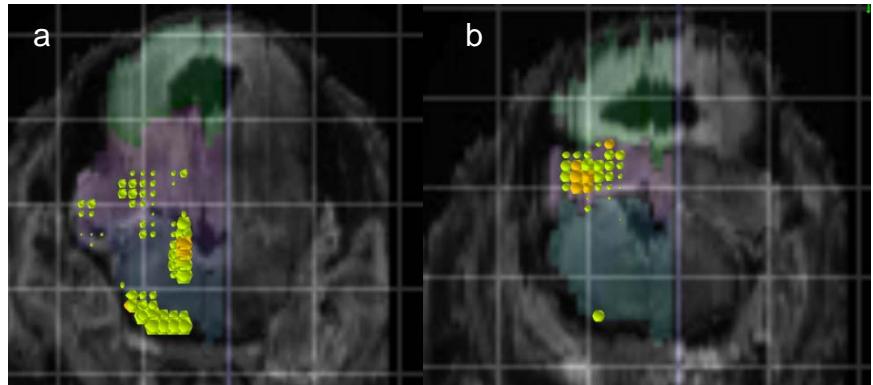


SHH-subgroup gene: *Igfbp5*, Insulin like growth factor binding protein 5 (E15.5)

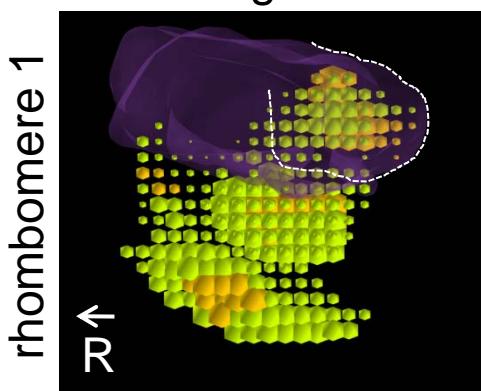
sagittal section



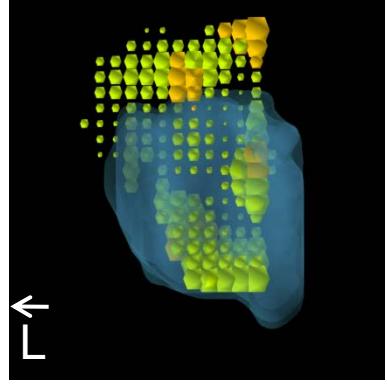
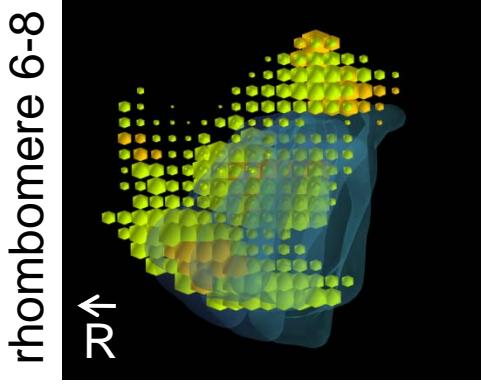
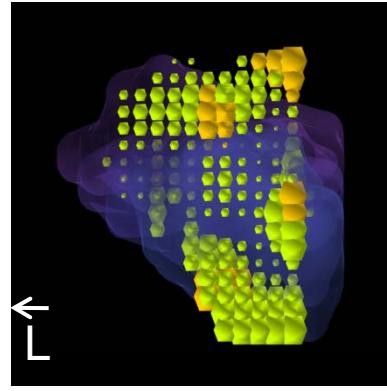
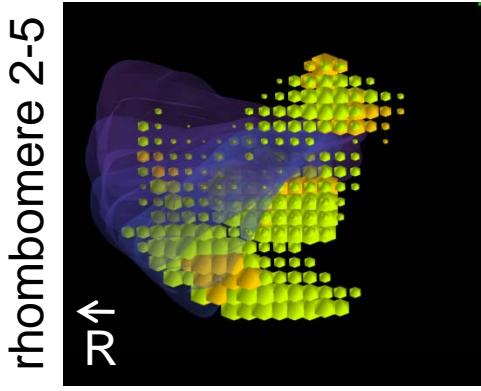
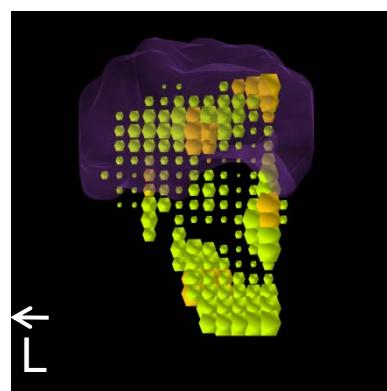
coronal sections



sagittal



coronal

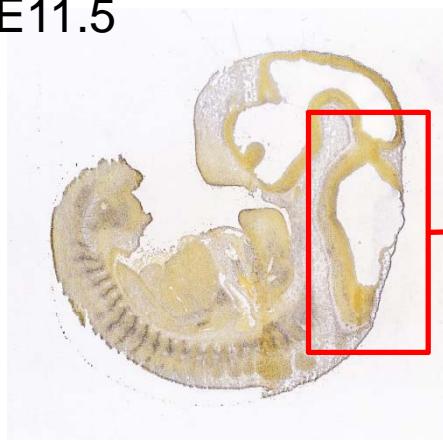


expression  
intensity

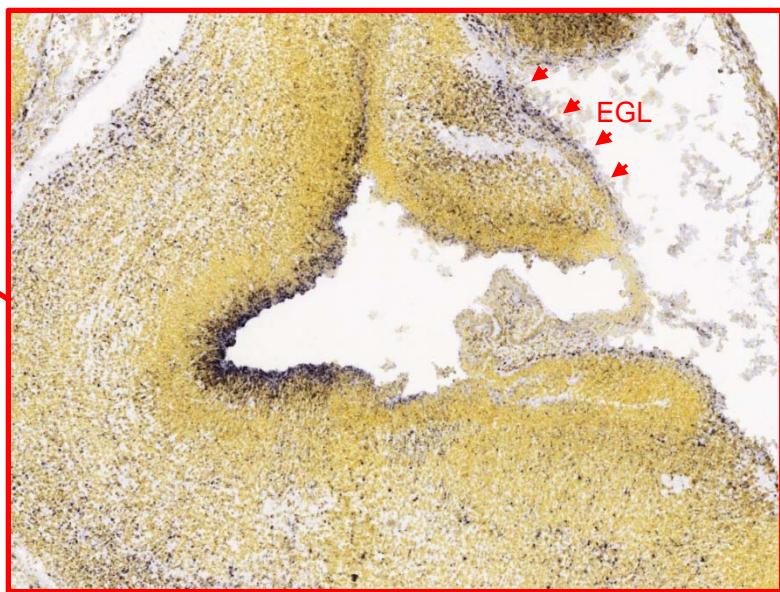
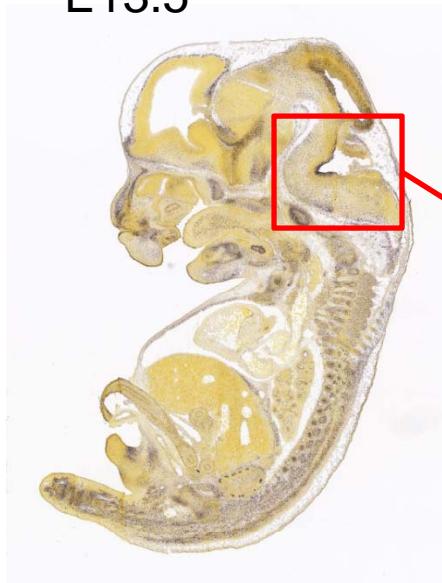


## SHH-subgroup gene: *Sema6a*, Sema domain 6a (*in situ*)

E11.5



E13.5

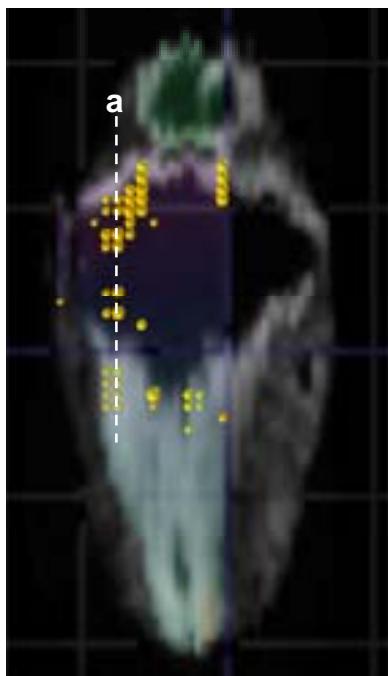


E15.5

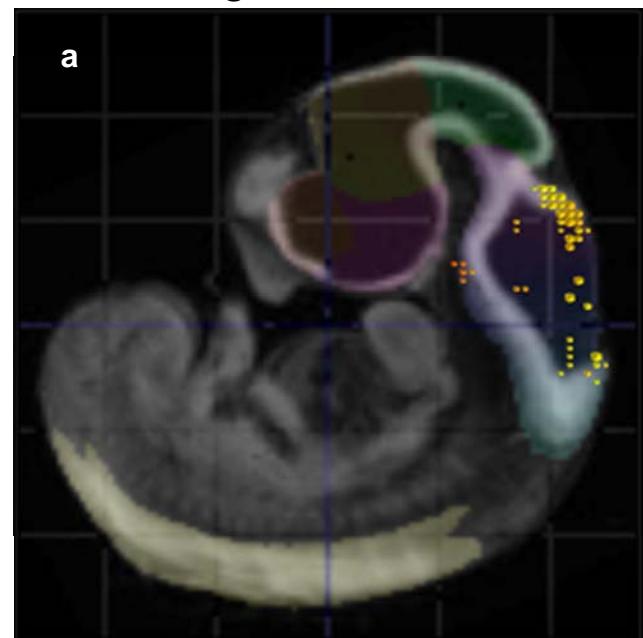


## SHH-subgroup gene: *Sema6a*, Sema domain 6a (E11.5)

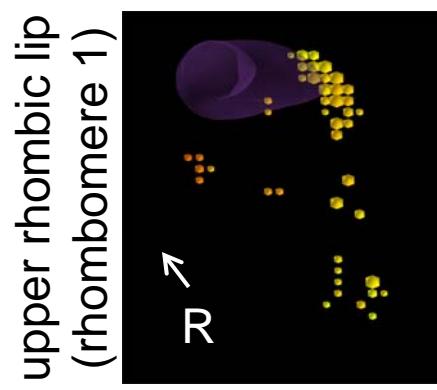
coronal section



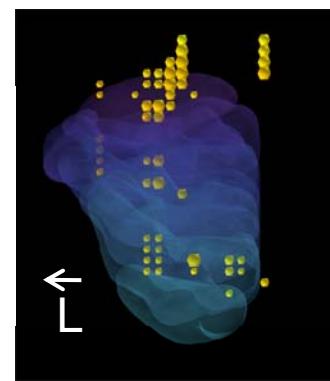
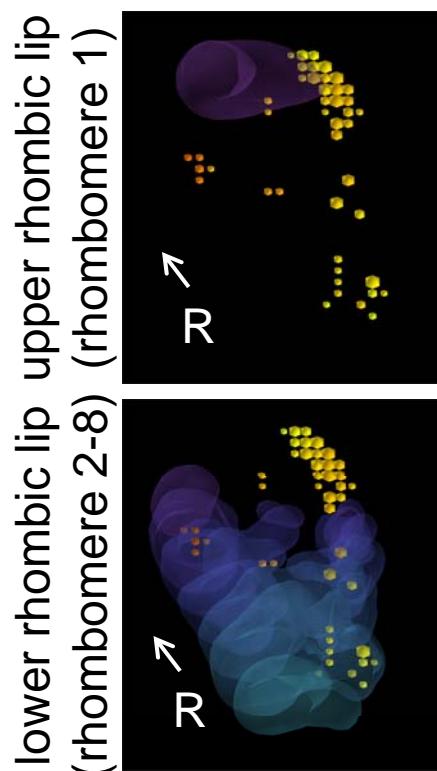
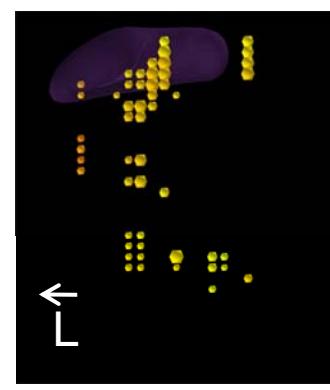
sagittal section



sagittal



coronal



lower rhombic lip upper rhombic lip  
(rhombomere 2-8) (rhombomere 1)

expression intensity

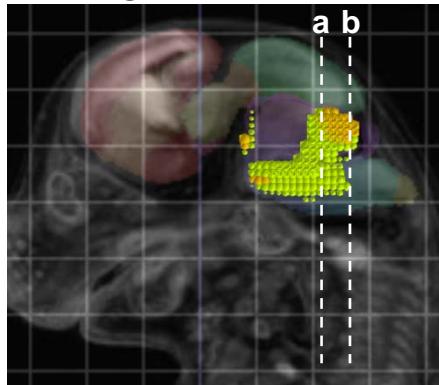


0

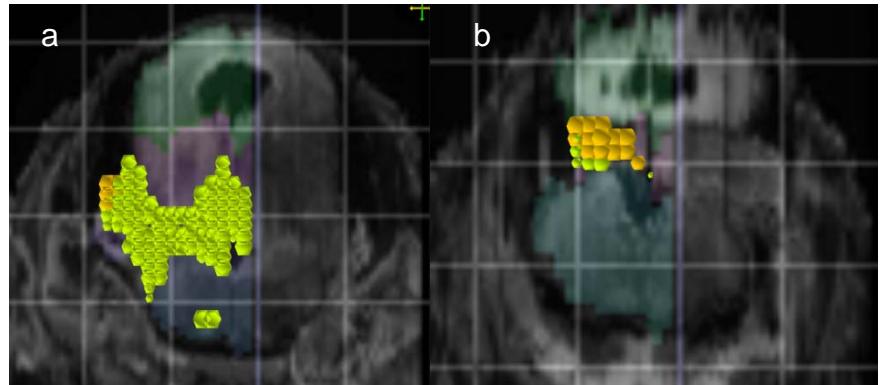
270

## SHH-subgroup gene: *Sema6a*, Sema domain 6a (E15.5)

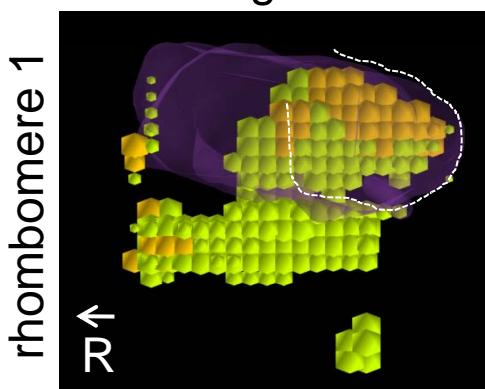
sagittal section



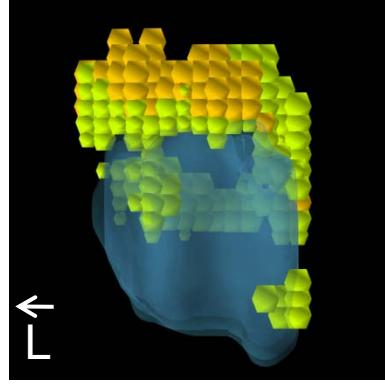
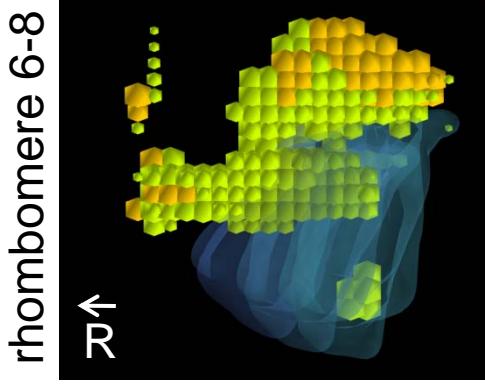
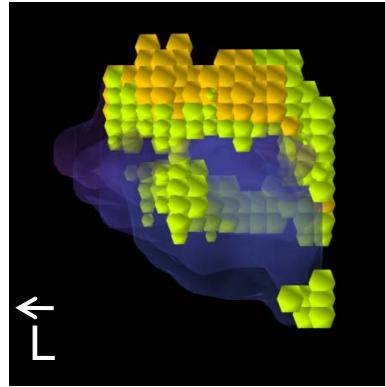
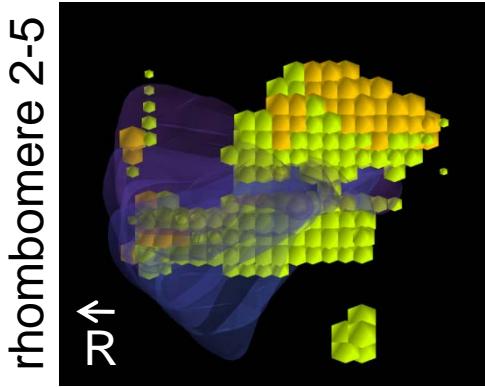
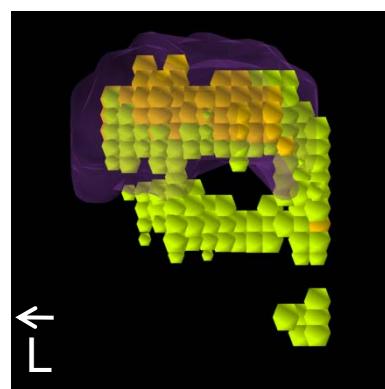
coronal sections



sagittal



coronal

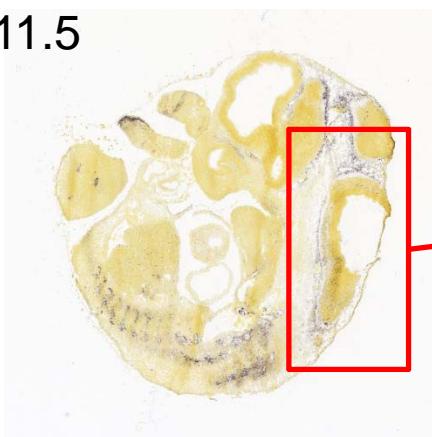


expression  
intensity

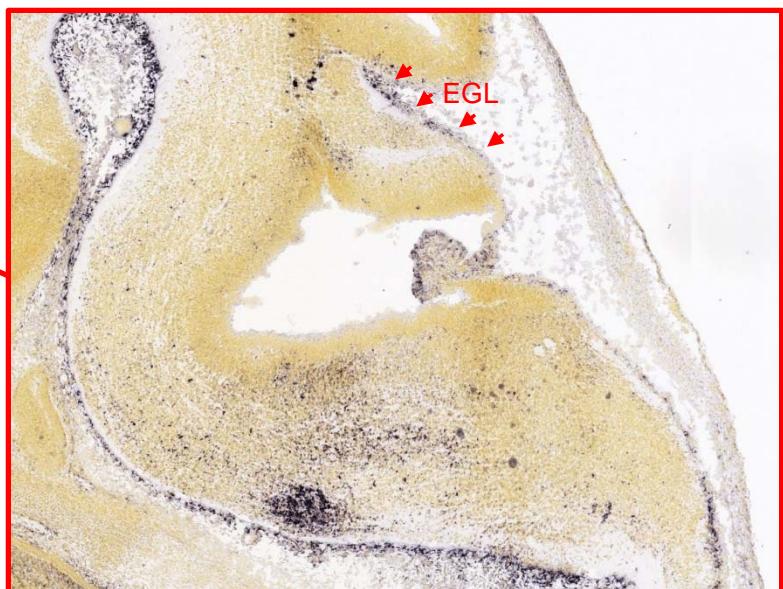


## SHH-subgroup gene: *Ngfr*, Nerve growth factor receptor (*in situ*)

E11.5



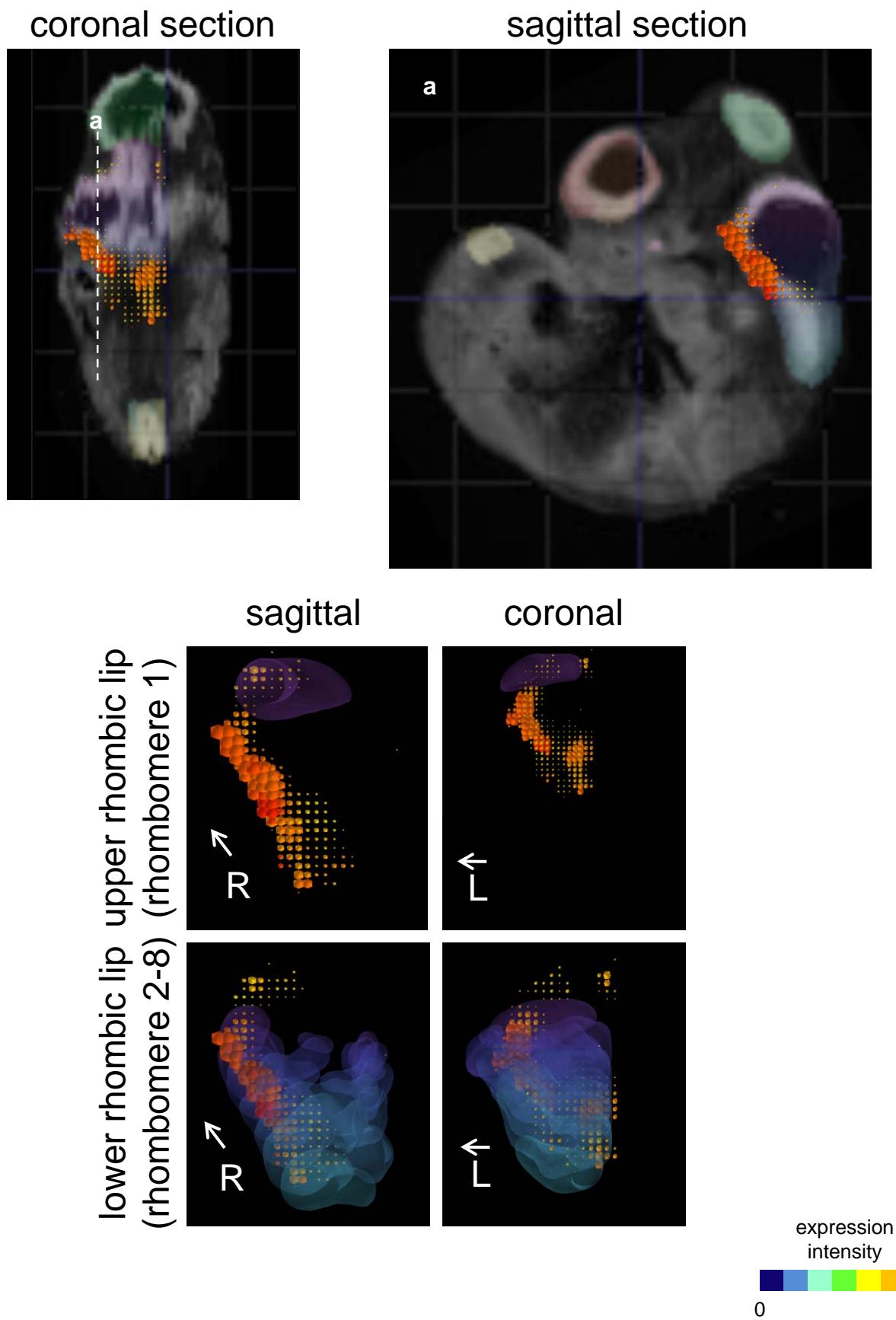
E13.5



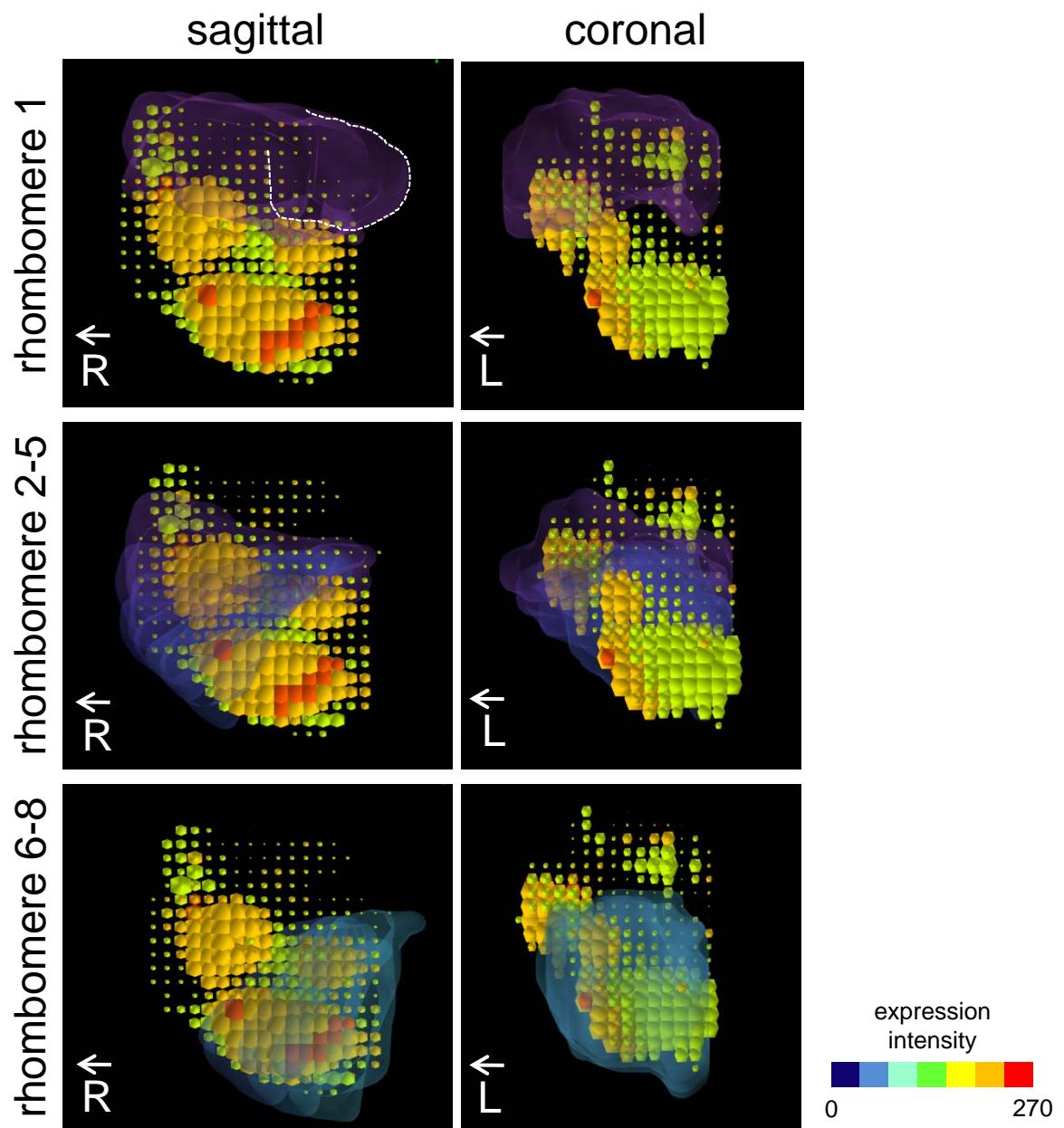
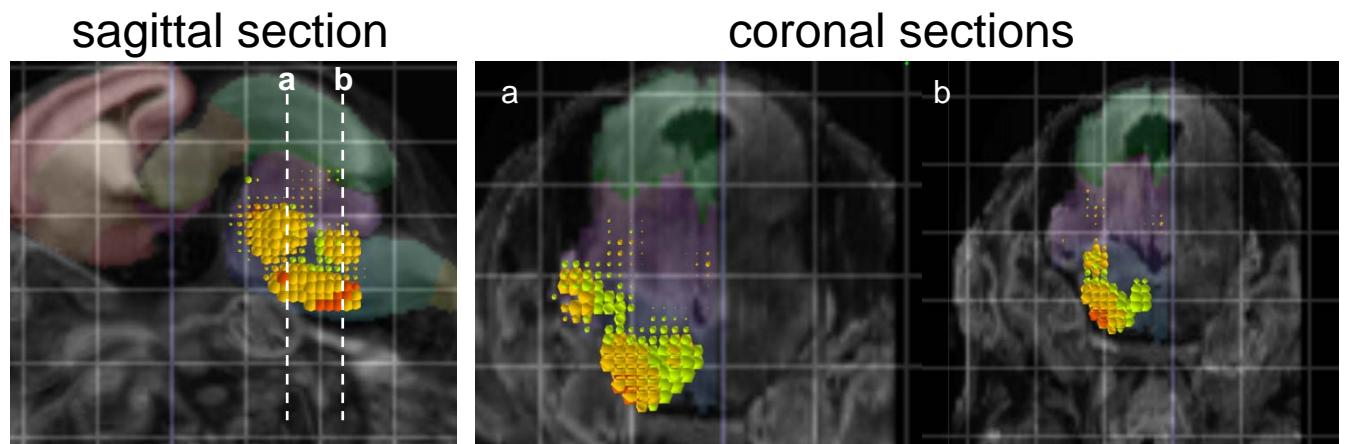
E15.5



SHH-subgroup gene: *Ngfr*, Nerve growth factor receptor (E11.5)



## SHH-subgroup gene: *Ngfr*, Nerve growth factor receptor (E15.5)

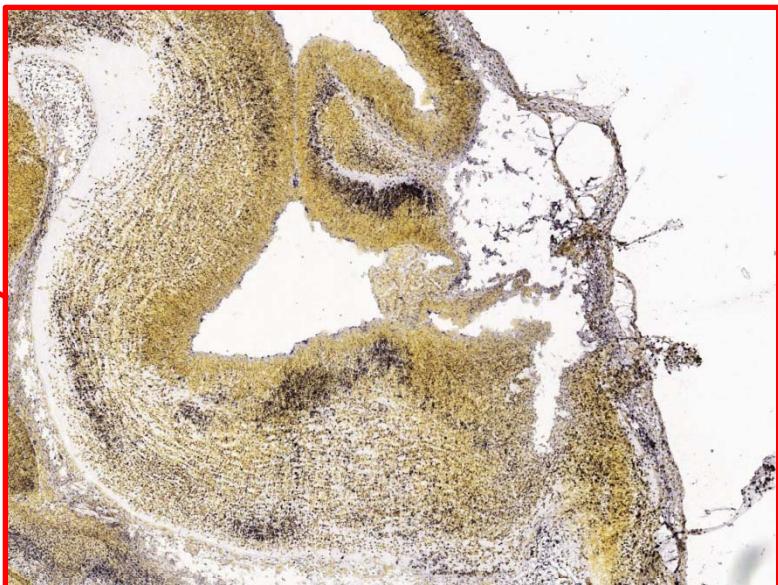


## SHH-subgroup gene: *Lmo4*, Lim domain only 4 (*in situ*)

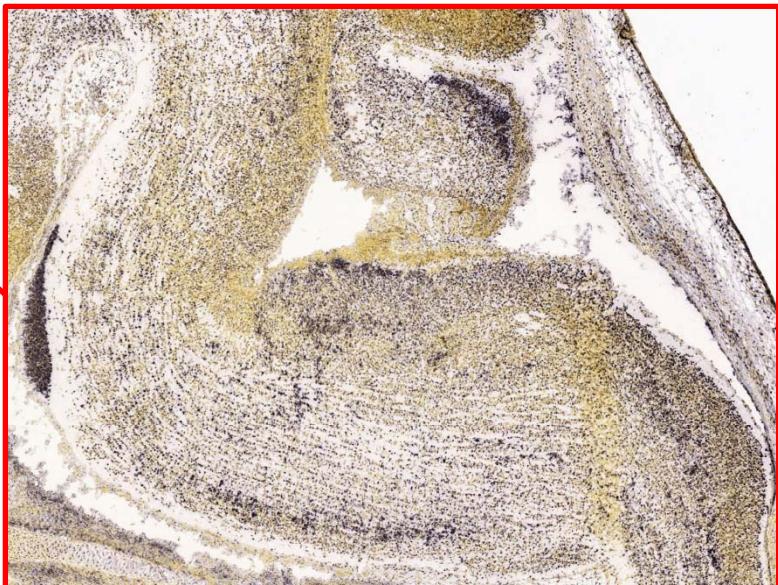
E11.5



E13.5

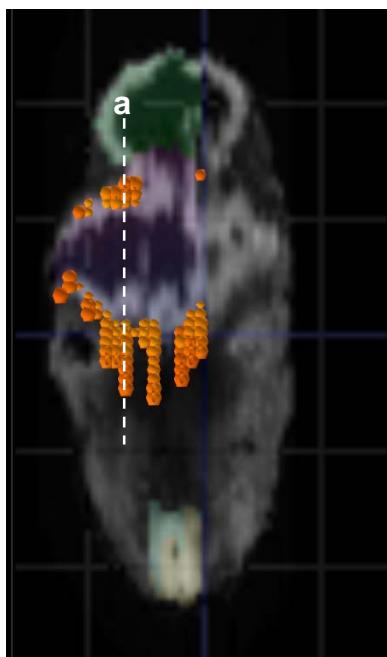


E15.5

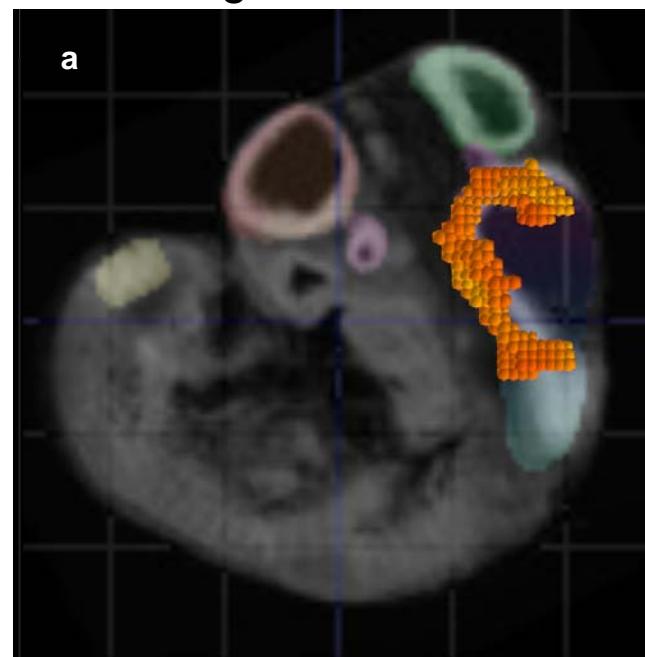


## SHH-subgroup gene: *Lmo4*, Lim domain only 4 (E11.5)

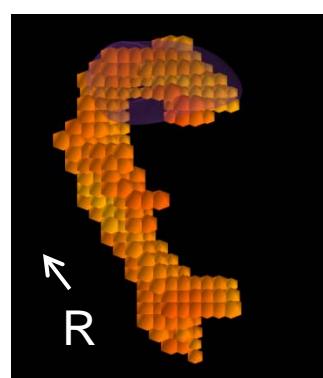
coronal section



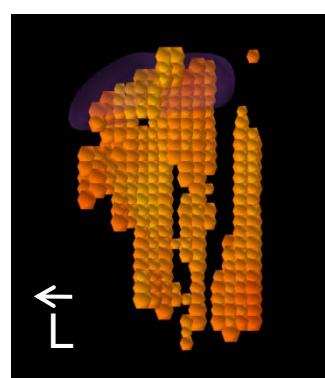
sagittal section



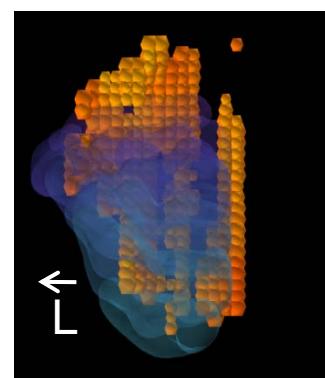
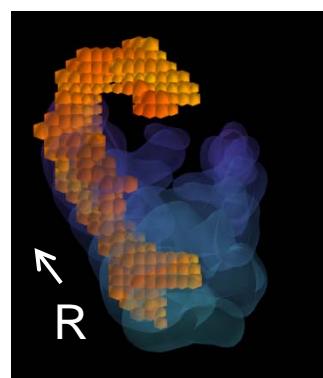
sagittal



coronal



lower rhombic lip upper rhombic lip  
(rhombomere 2-8) (rhombomere 1)

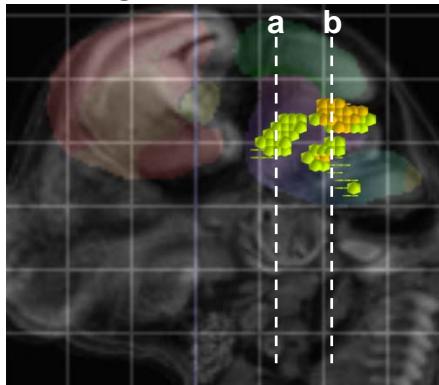


expression  
intensity

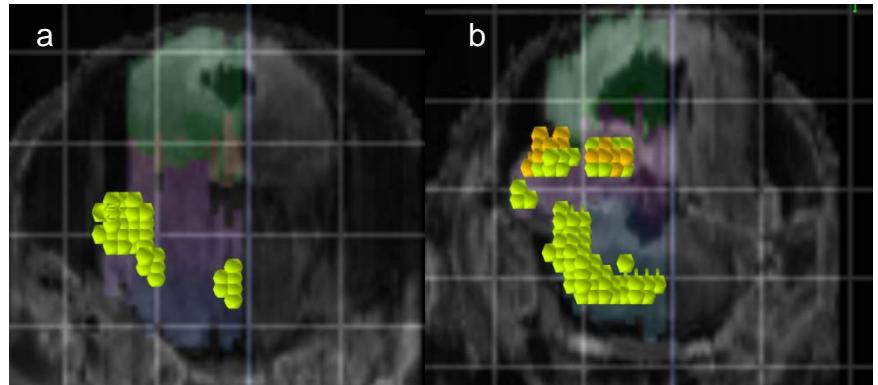


## SHH-subgroup gene: *Lmo4*, Lim domain only 4 (E15.5)

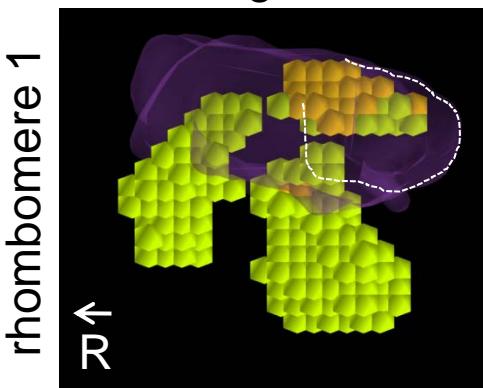
# sagittal section



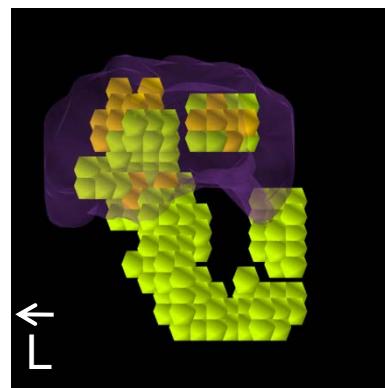
## coronal sections



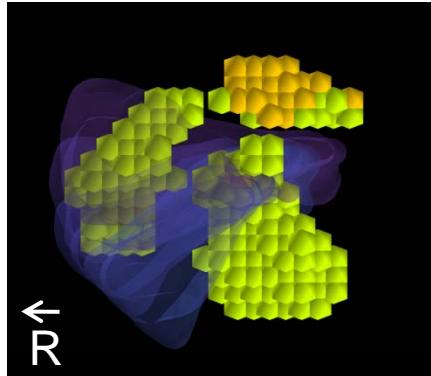
sagittal



## coronal

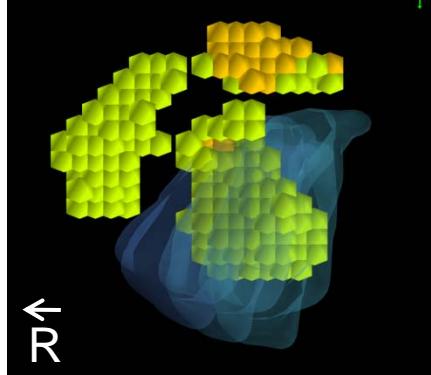


rhombomere 2-5



A 3D surface model of a protein dimer, likely a heterodimer, composed of two distinct subunits. The subunits are represented by a grid of colored squares: one subunit is primarily yellow with orange highlights, while the other is primarily purple with blue highlights. The interface between the two subunits is highlighted by a translucent purple surface. A white arrow points towards the bottom-left corner of the interface.

rhombomere 6-8



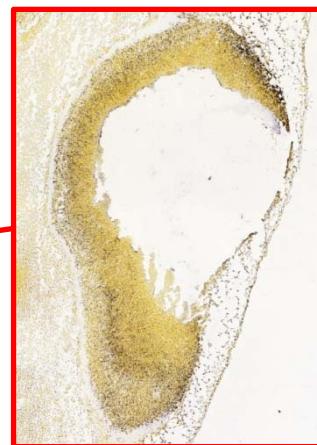
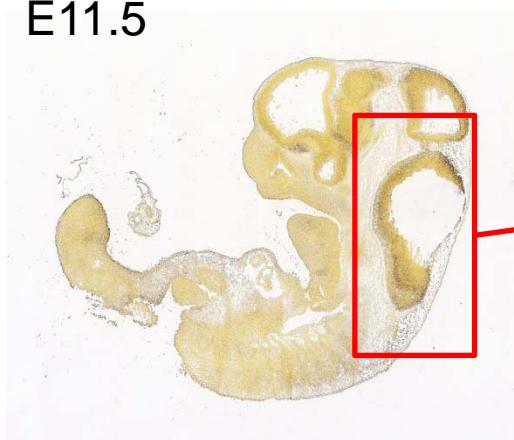
A 3D rendering of a brain model, likely a rat brain, showing a specific region highlighted in yellow and orange. The rest of the brain is rendered in a translucent blue. A black arrow points towards the highlighted area.

expression  
intensity

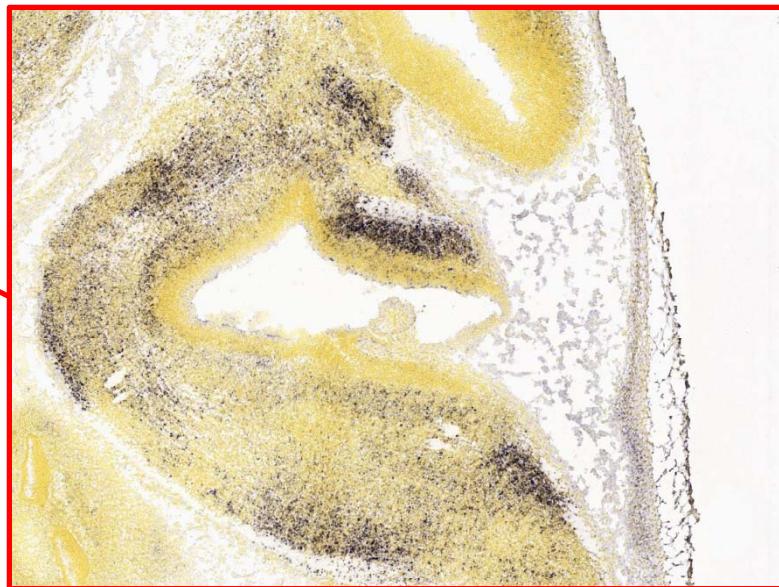
A horizontal color bar showing a gradient from dark blue on the left to red on the right. The bar is divided into seven equal segments. Below the bar, the value "0" is positioned under the first segment, and the value "270" is positioned under the last segment.

## SHH-subgroup gene: *Pbx3*, Pre B-cell leukemia factor 3 (*in situ*)

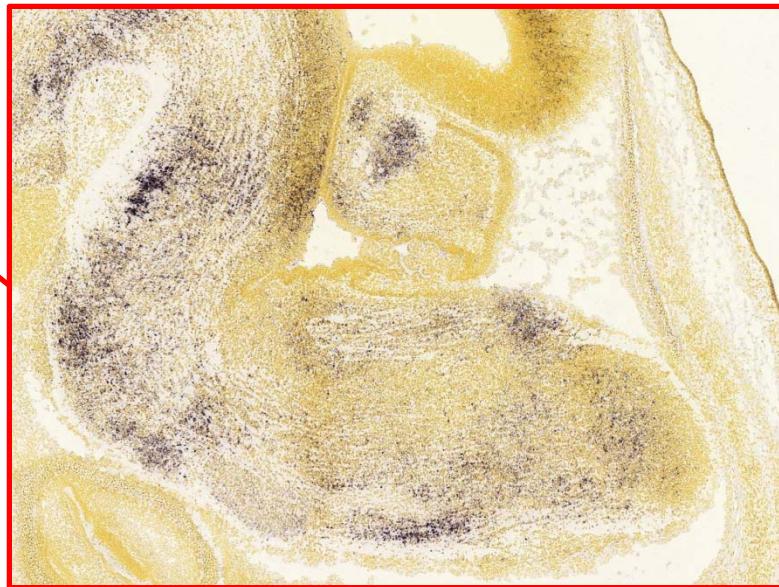
E11.5



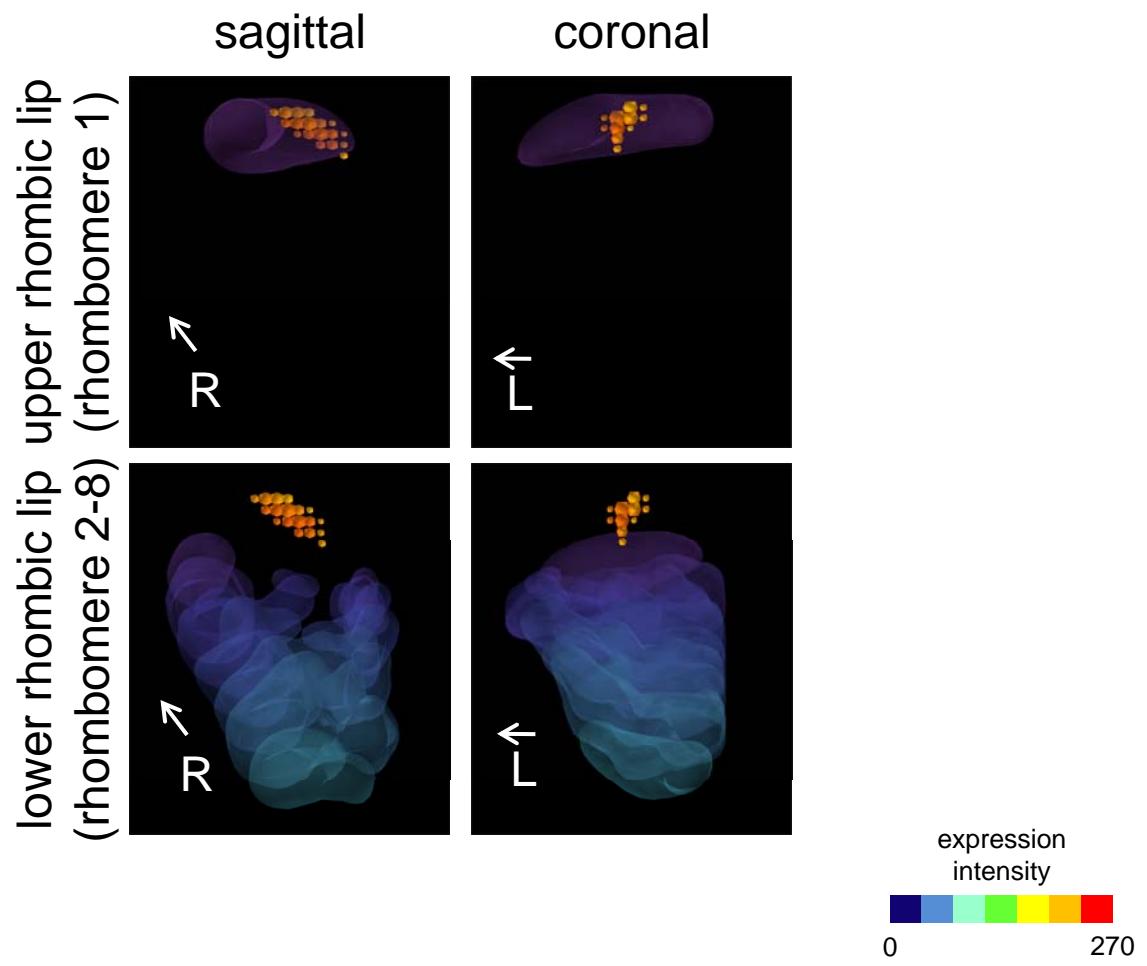
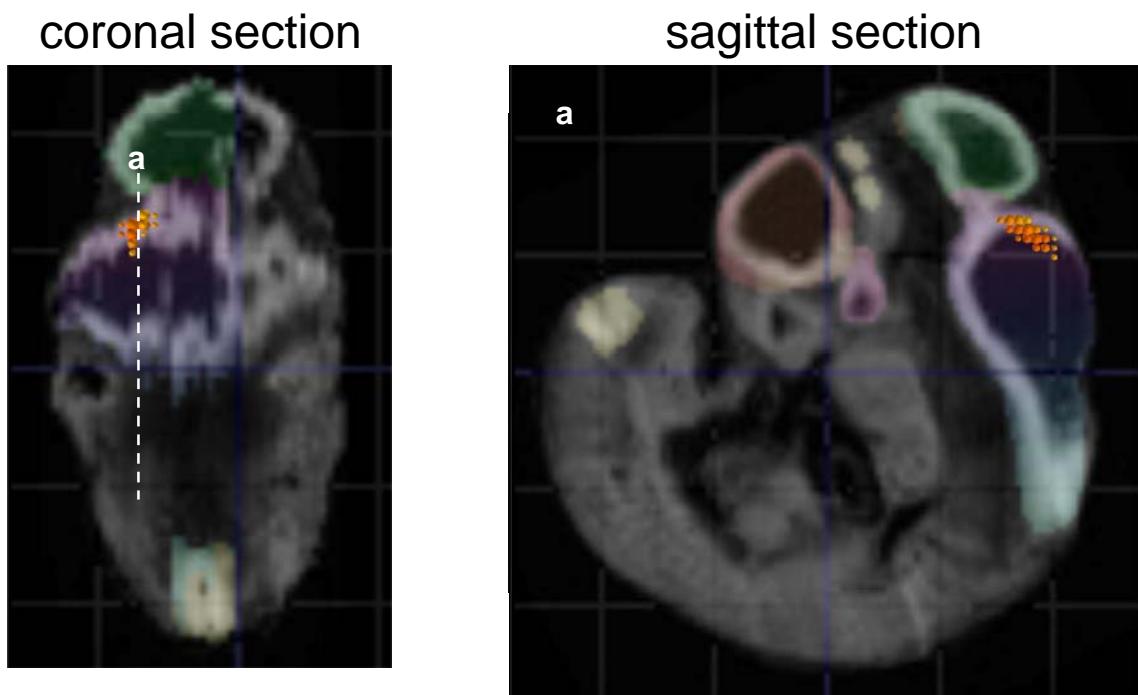
E13.5



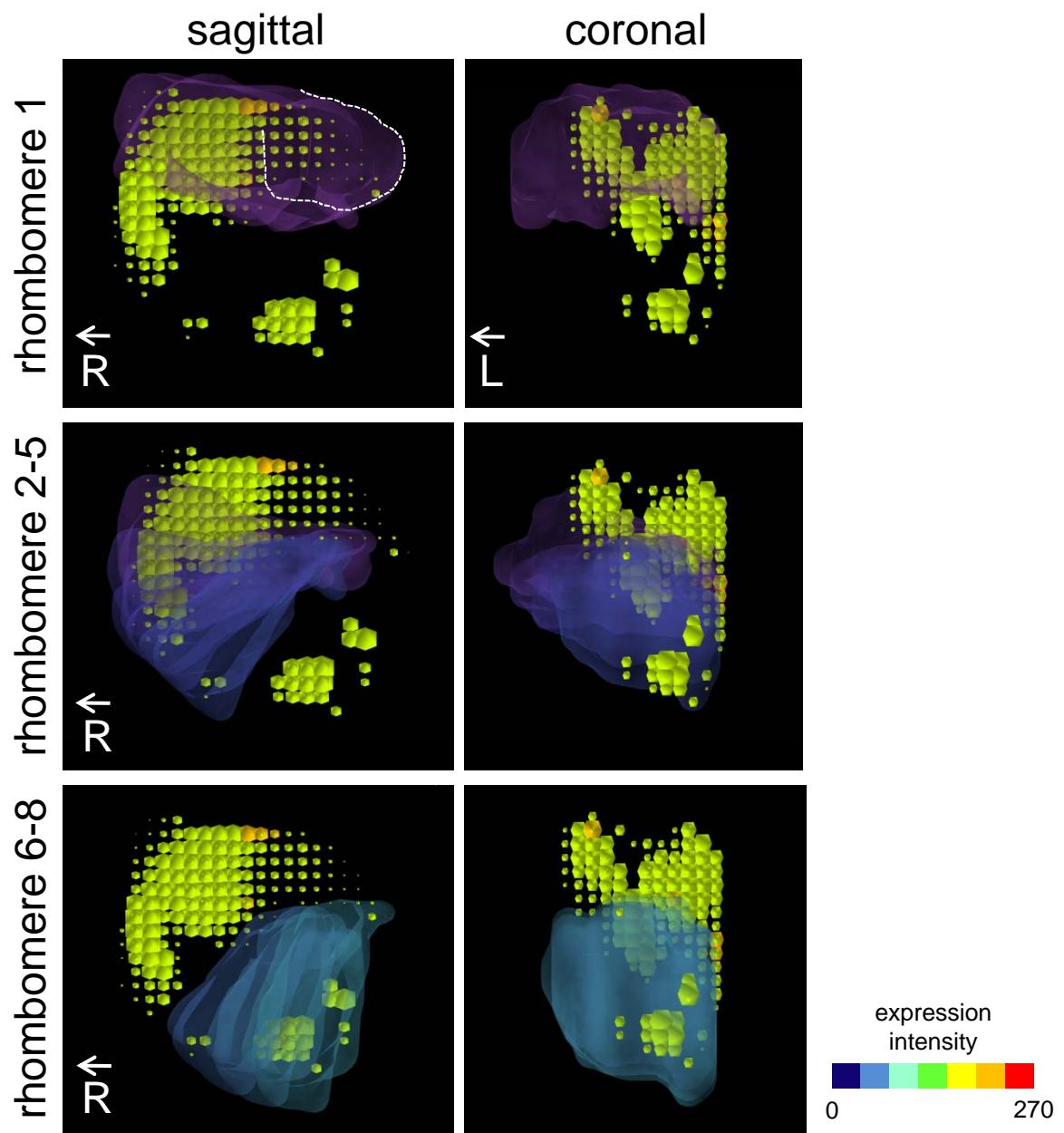
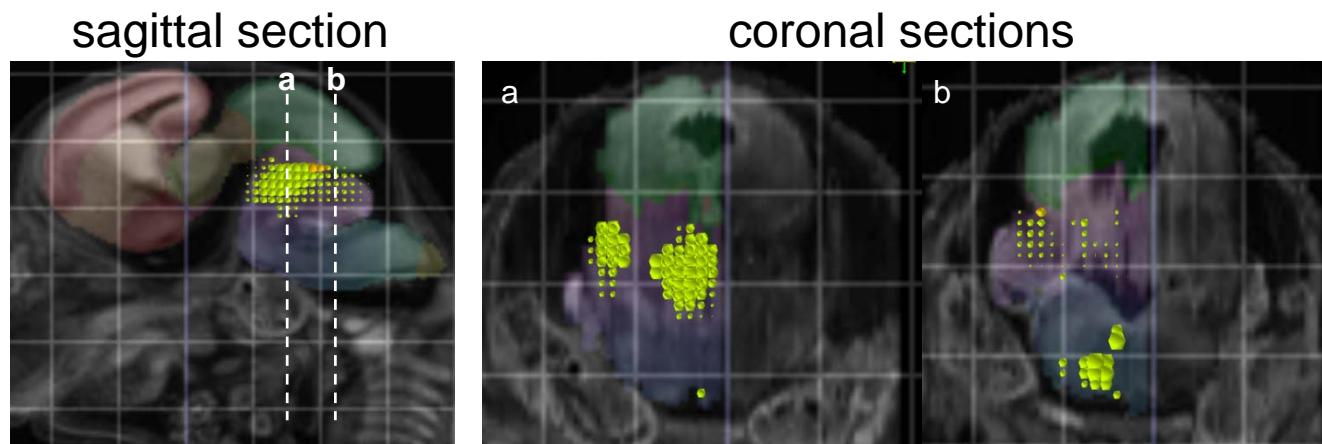
E15.5



## SHH-subgroup gene: *Pbx3*, Pre B-cell leukemia factor 3 (E11.5)

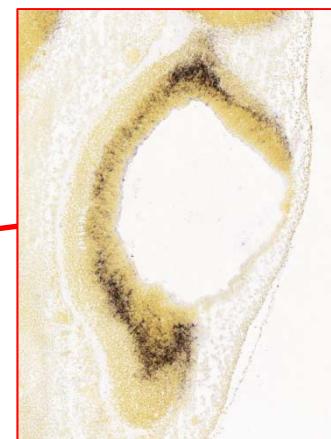


## SHH-subgroup gene: *Pbx3*, Pre B-cell leukemia factor 3 (E15.5)

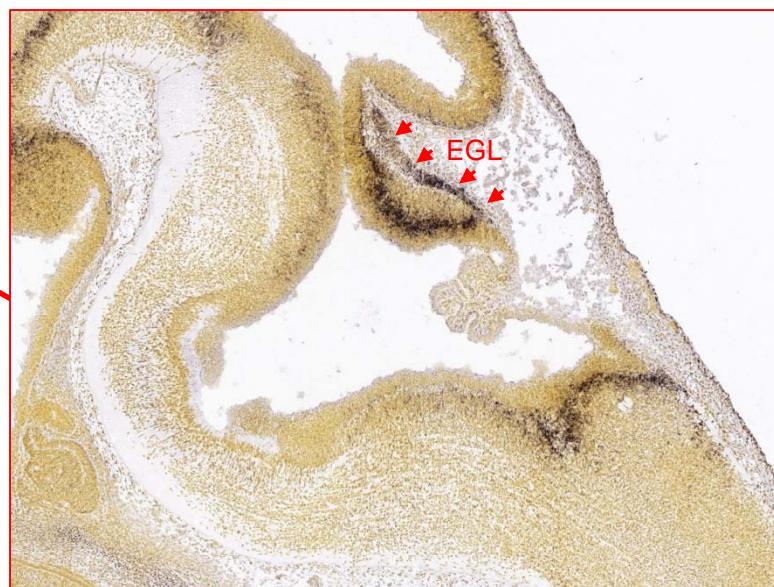


## SHH-subgroup gene: *Nhlh1*, Nescient helix loop helix 1 (*in situ*)

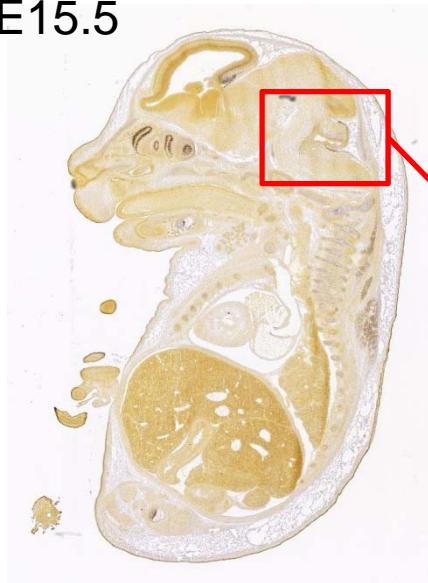
E11.5



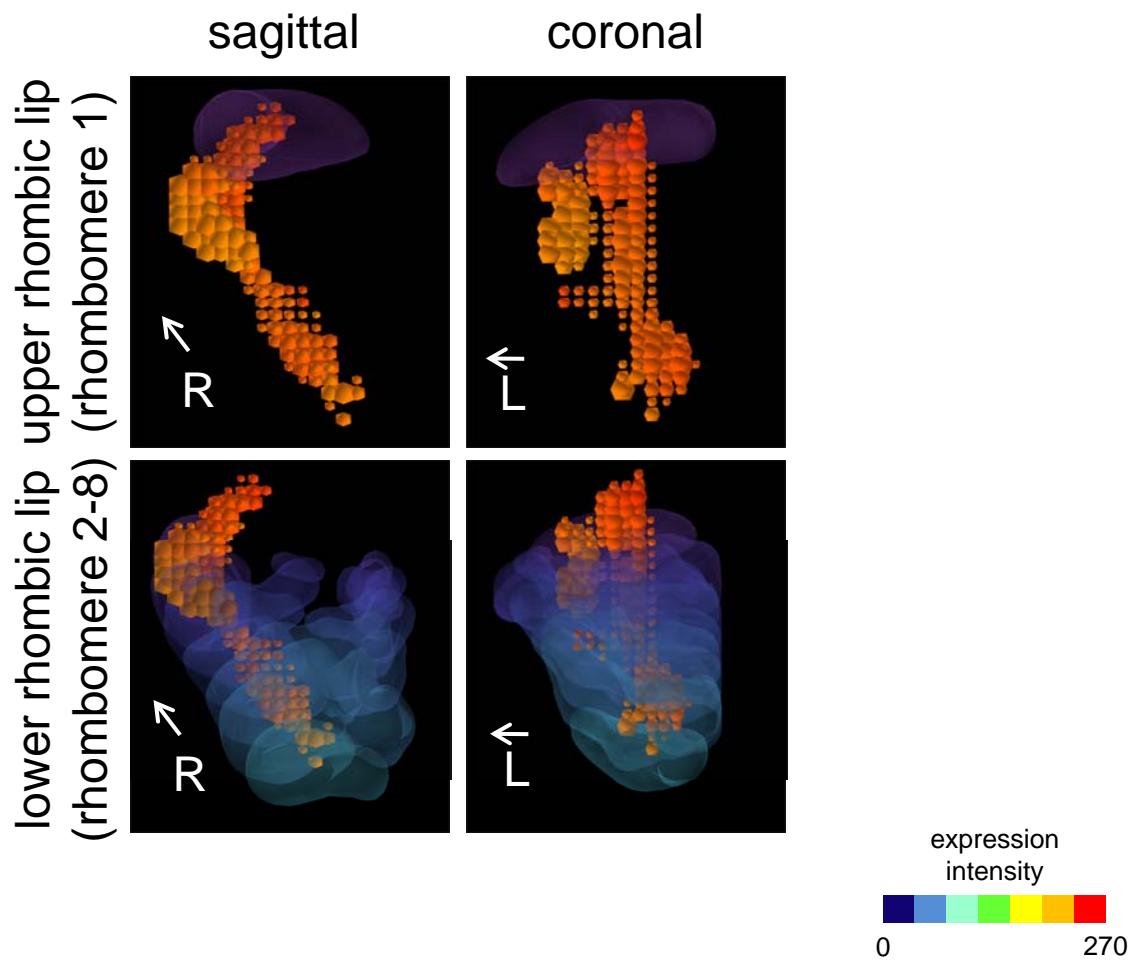
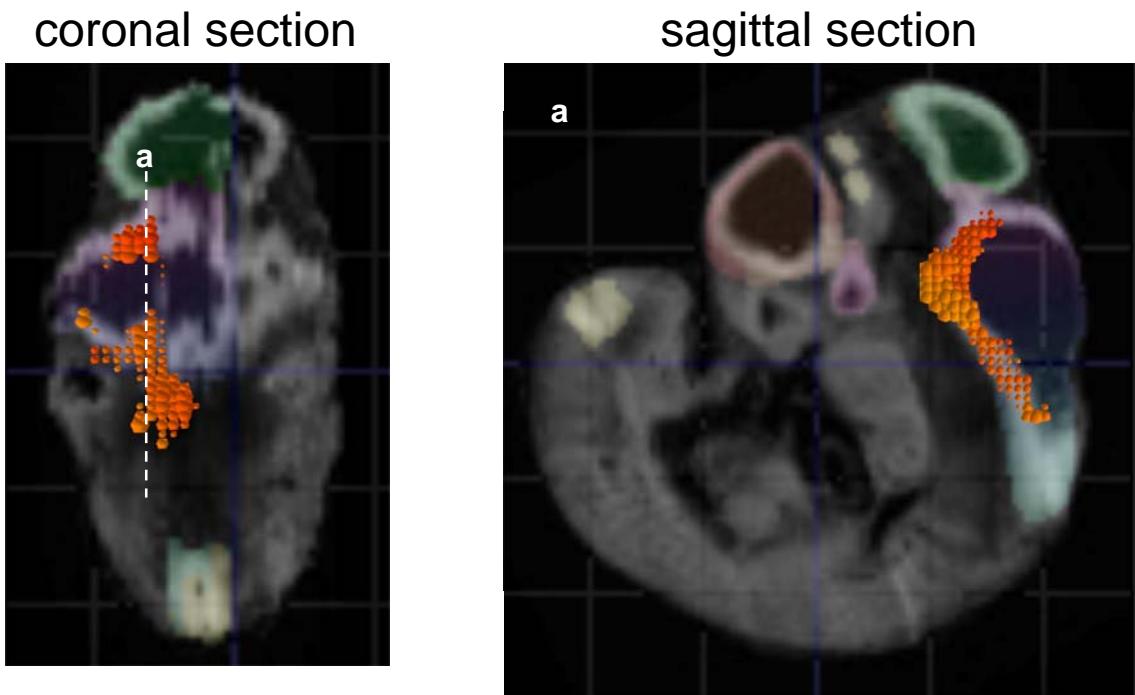
E13.5



E15.5

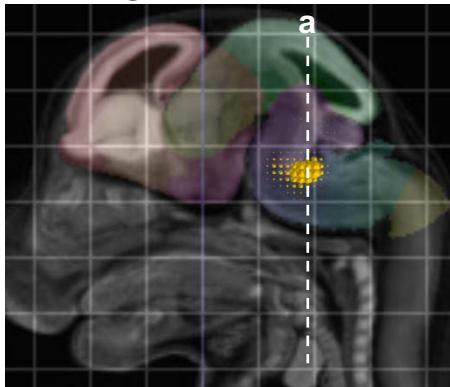


## SHH-subgroup gene: *Nhlh1*, Nescient helix loop helix 1 (E11.5)

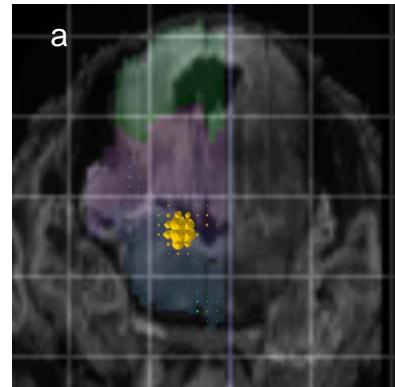


## SHH-subgroup gene: *Nhlh1*, Nescient helix loop helix 1 (E15.5)

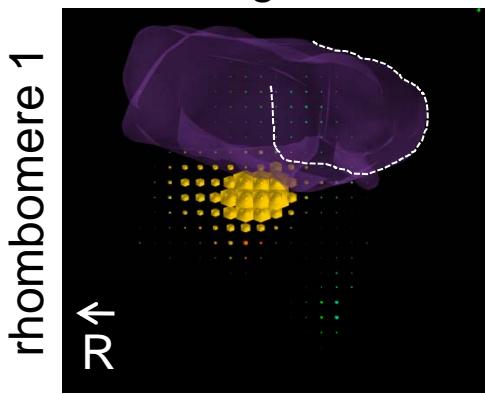
sagittal section



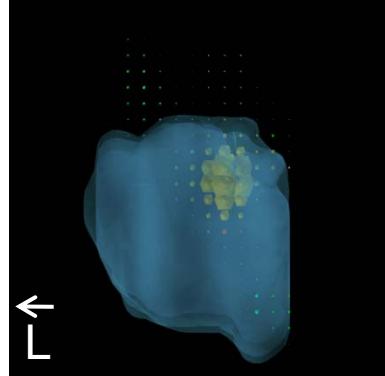
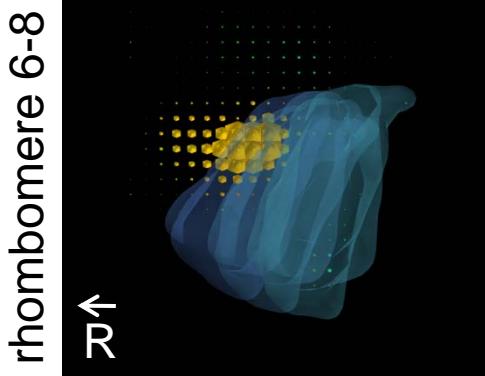
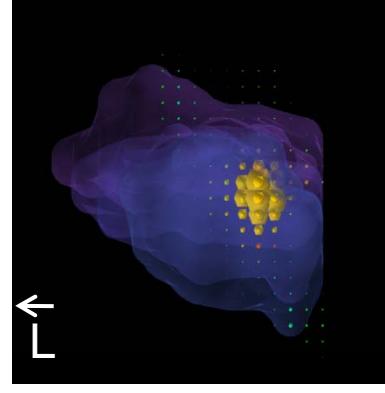
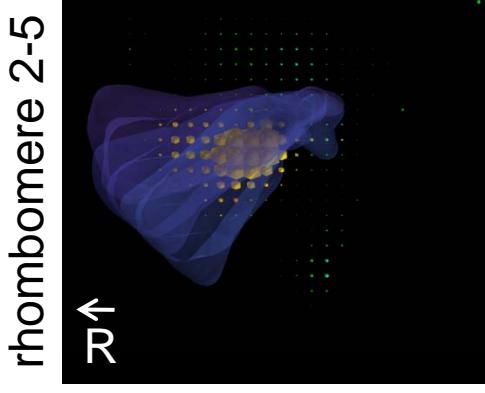
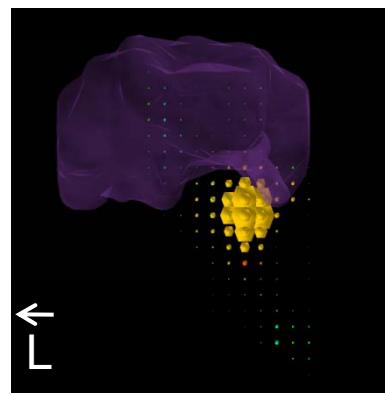
coronal section



sagittal



coronal

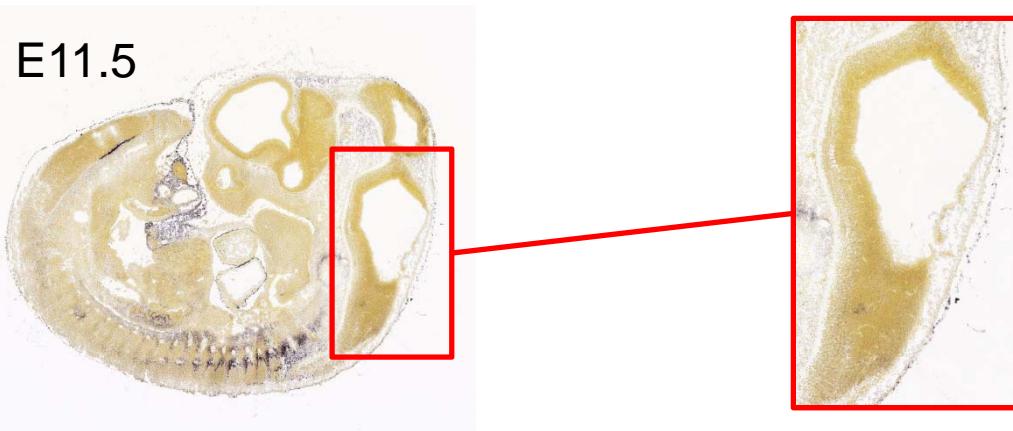


expression  
intensity



## SHH-subgroup gene: *Dcn*, Decorin (*in situ*)\*

E11.5



E13.5



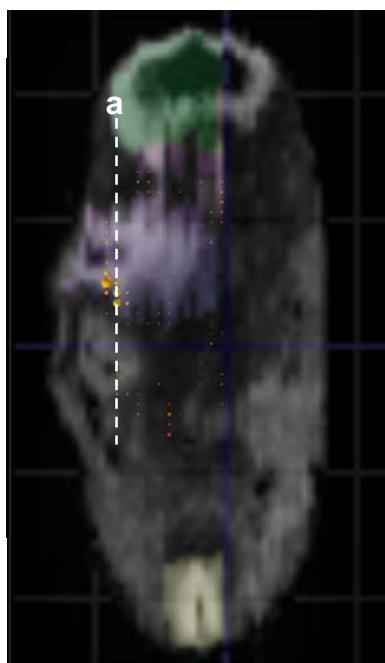
E15.5



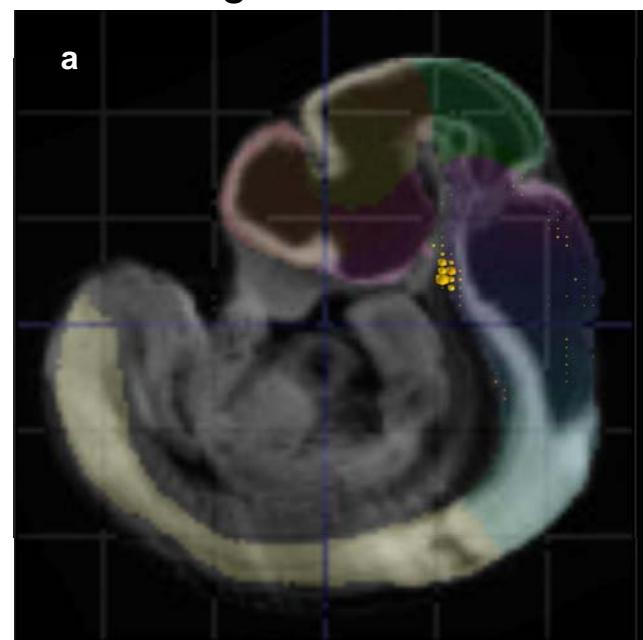
\*note expression appears pia-related

## SHH-subgroup gene: *Dcn*, Decorin (E11.5)

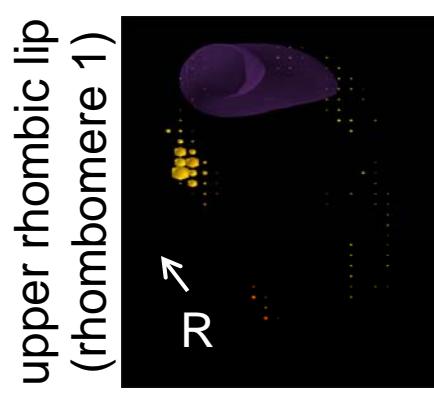
coronal section



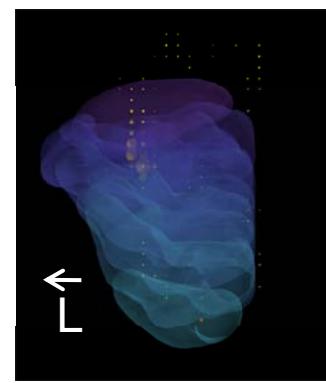
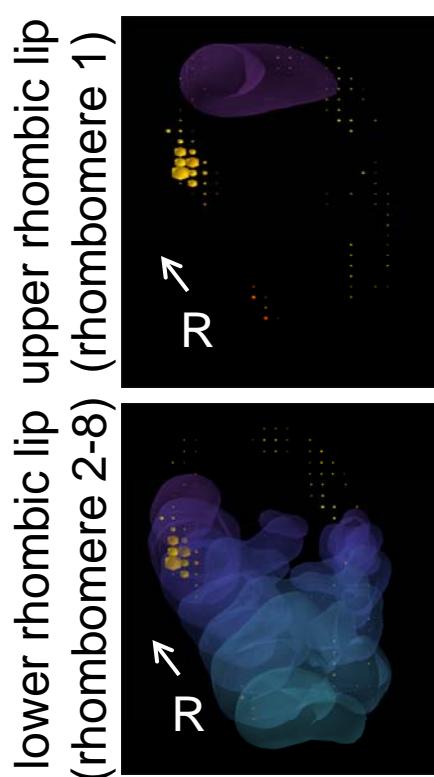
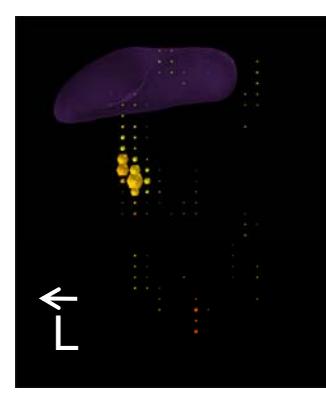
sagittal section



sagittal



coronal



expression intensity

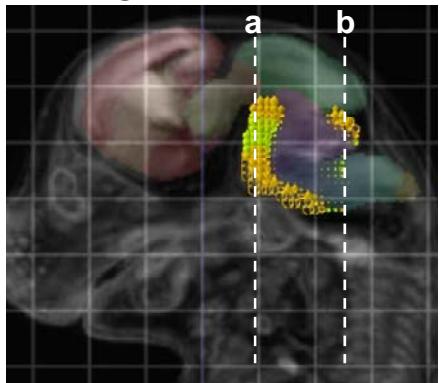


0

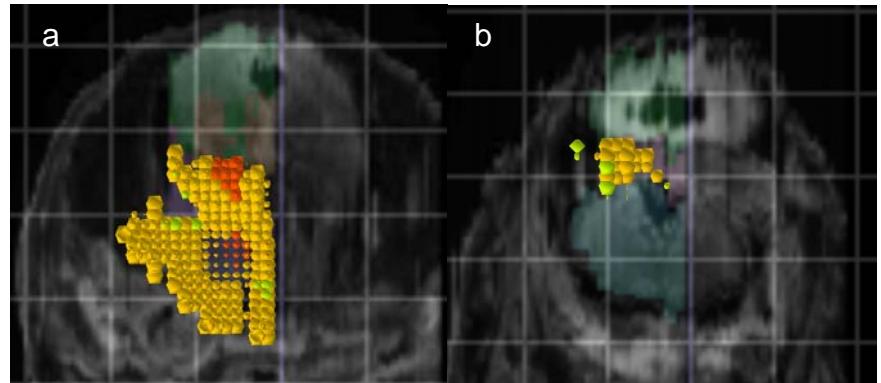
270

## SHH-subgroup gene: *Dcn*, Decorin (E15.5)

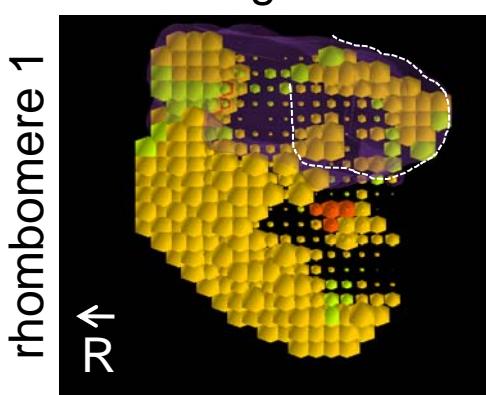
sagittal section



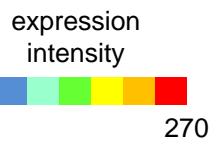
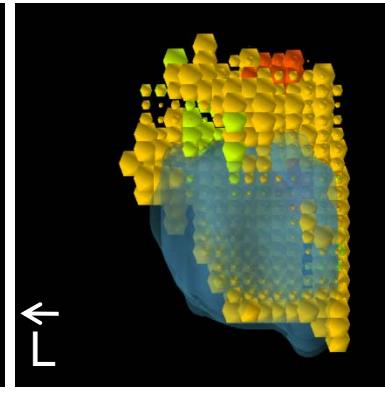
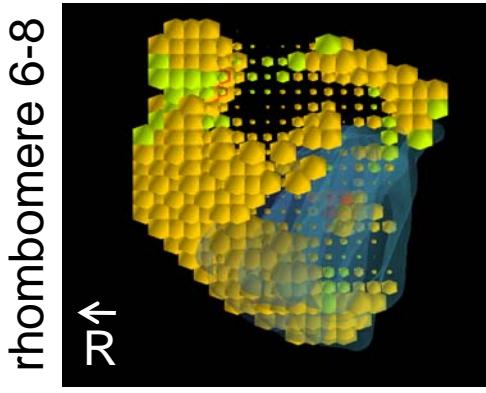
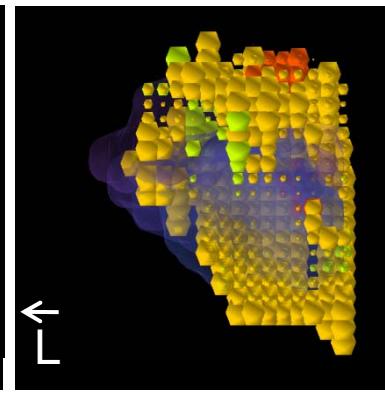
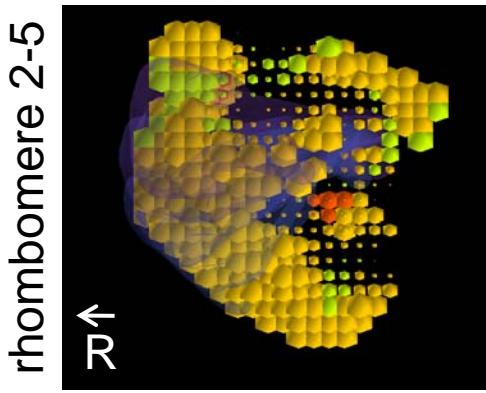
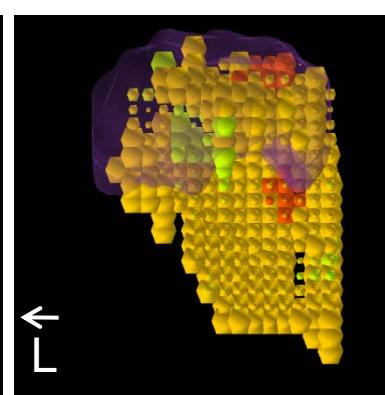
coronal sections



sagittal



coronal

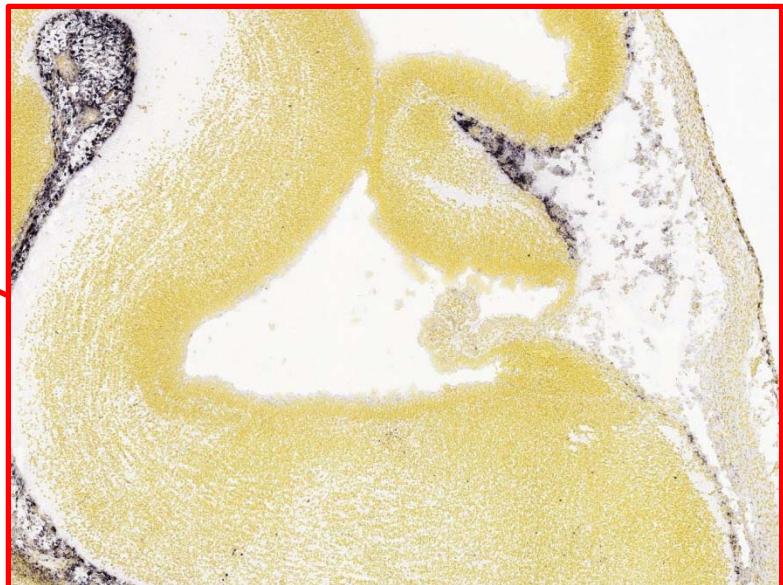


SHH-subgroup gene: *Cxcl12*, chemokine c-x-c ligand 12 (E11.5)\*

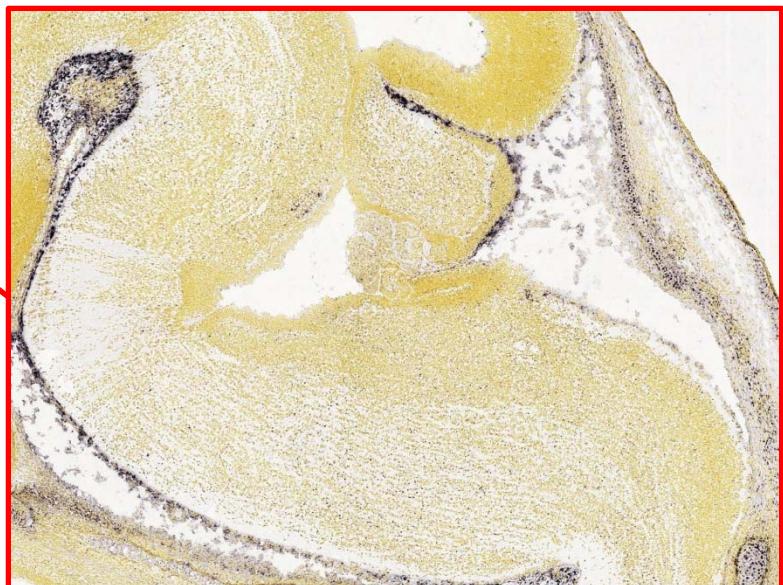
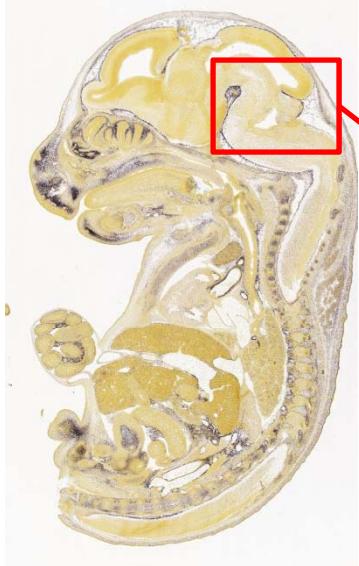
E11.5

not available

E13.5



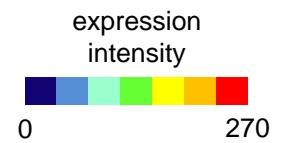
E15.5



\*note expression appears pia-related

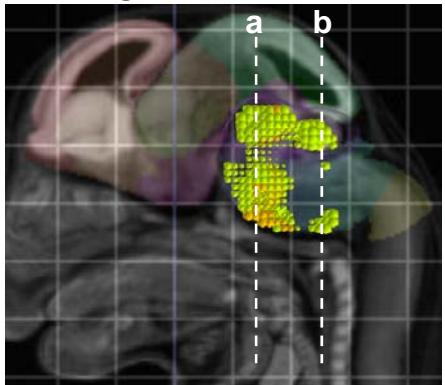
SHH-subgroup gene: *Cxcl12*, chemokine c-x-c ligand 12 (E11.5)

not available

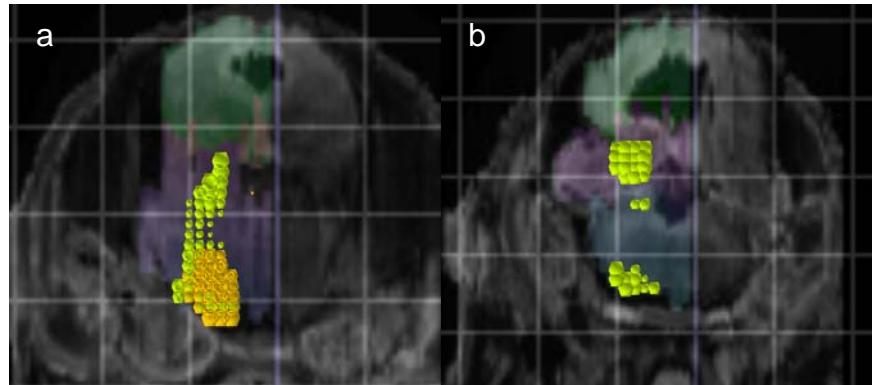


## SHH-subgroup gene: *Cxc12*, chemokine c-x-c ligand 12 (E15.5)

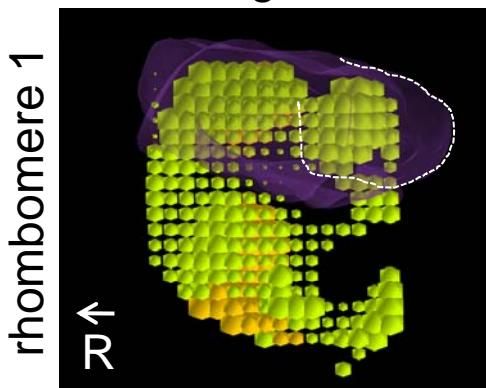
sagittal section



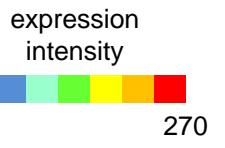
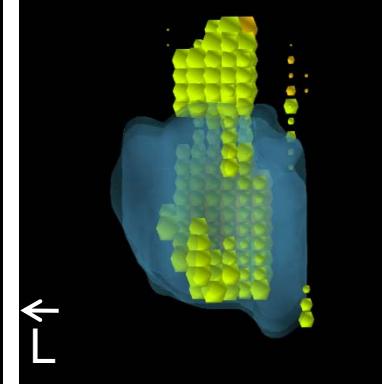
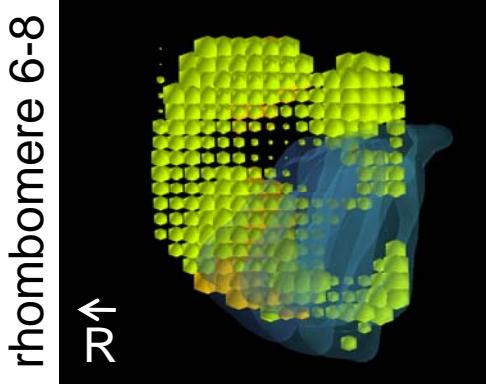
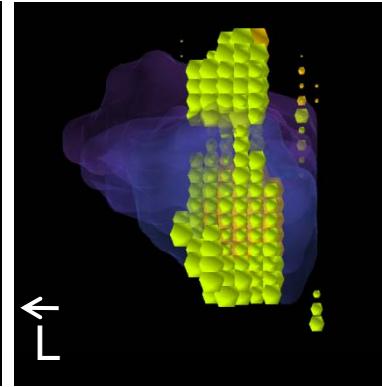
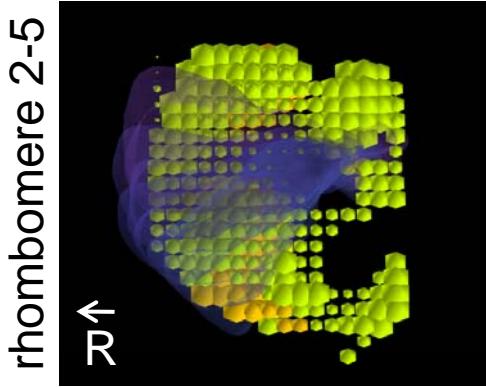
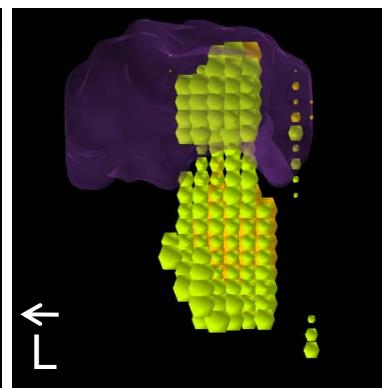
coronal sections



sagittal

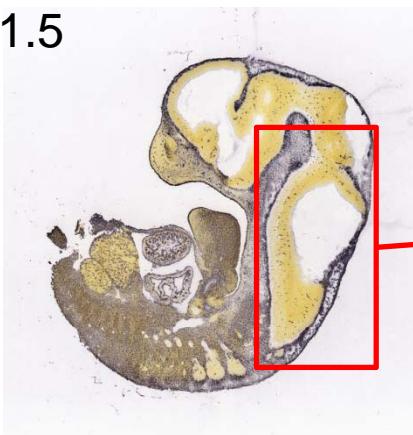


coronal

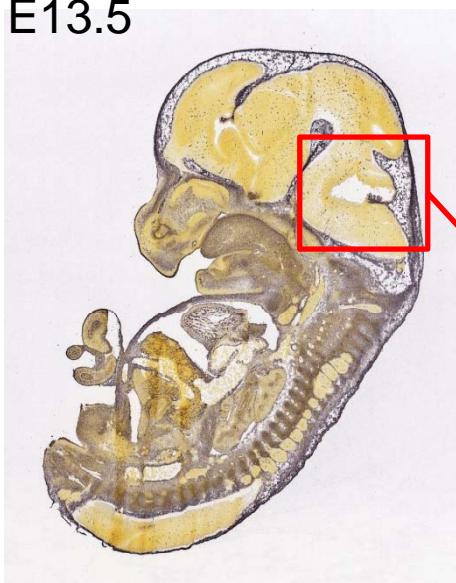


## SHH-subgroup gene: *Igf2*, Insulin growth factor 2 (*in situ*)\*

E11.5



E13.5



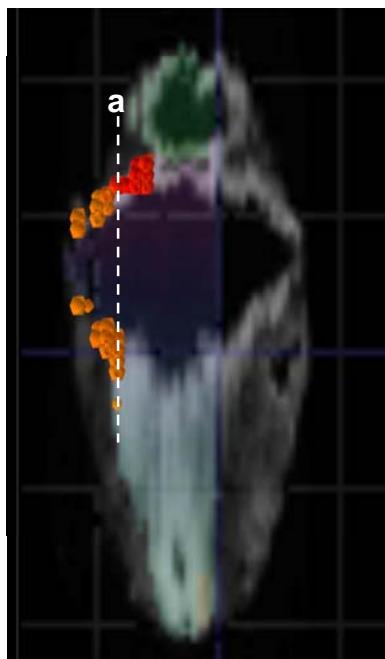
E15.5



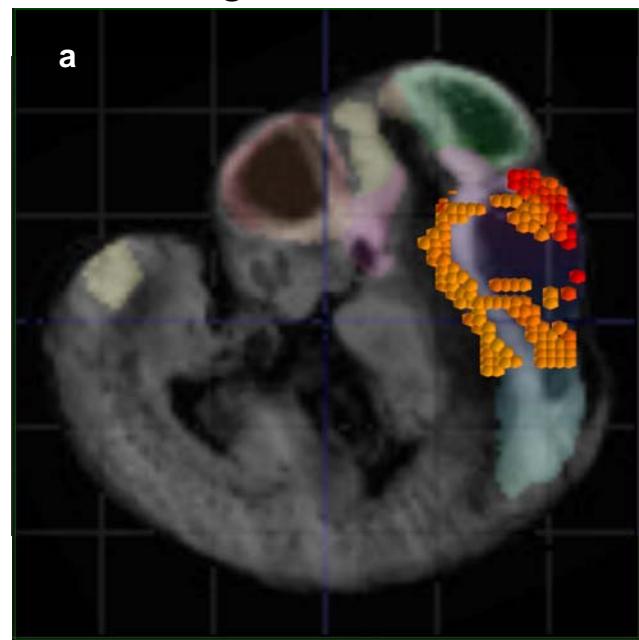
\*note expression appears pia-related

## SHH-subgroup gene: *Igf2*, Insulin growth factor 2 (E11.5)

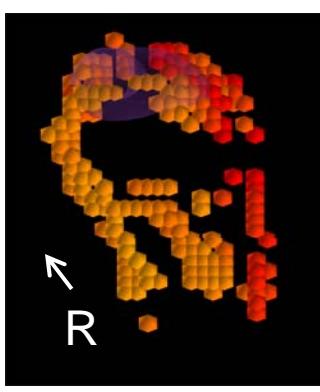
coronal section



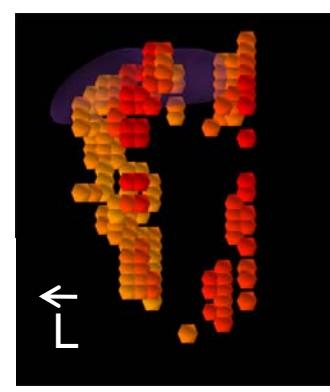
sagittal section



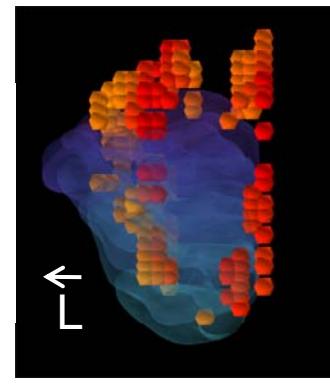
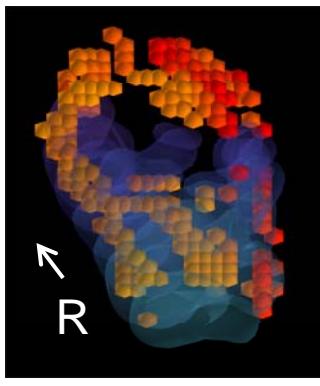
sagittal



coronal



lower rhombic lip upper rhombic lip  
(rhombomere 2-8) (rhombomere 1)



expression intensity

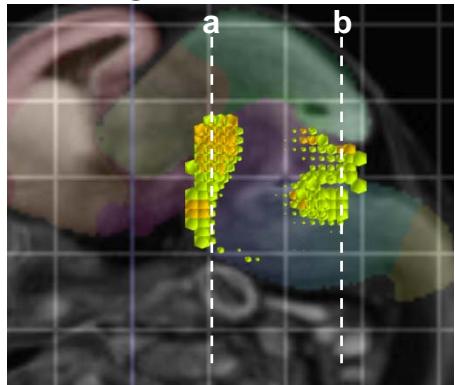


0

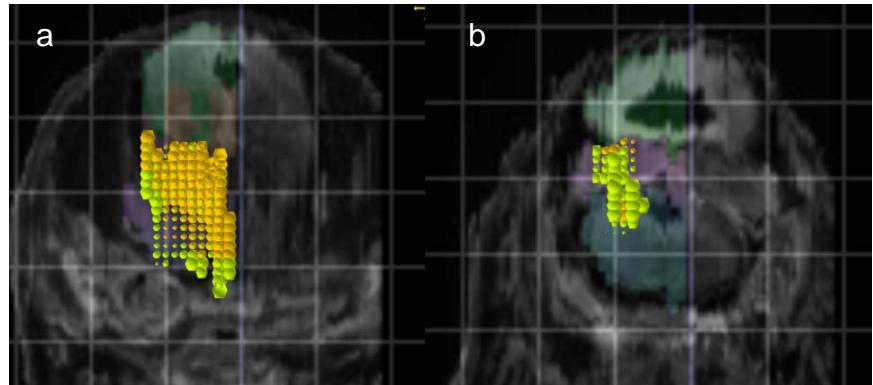
270

SHH-subgroup gene: *Igf2*, Insulin growth factor 2 (E15.5)

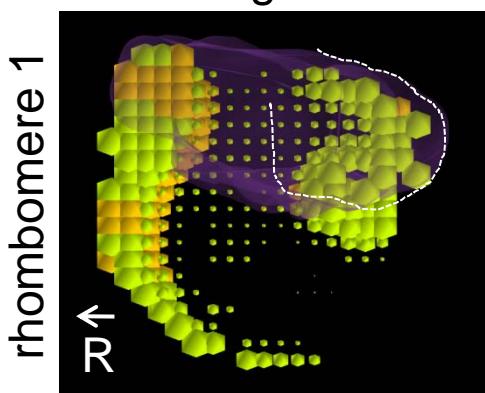
## sagittal section



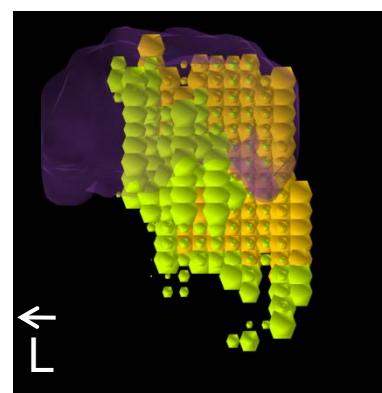
## coronal sections



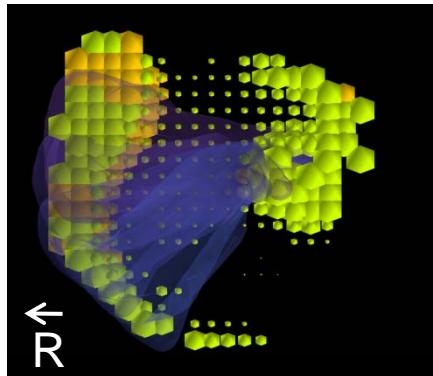
## sagittal



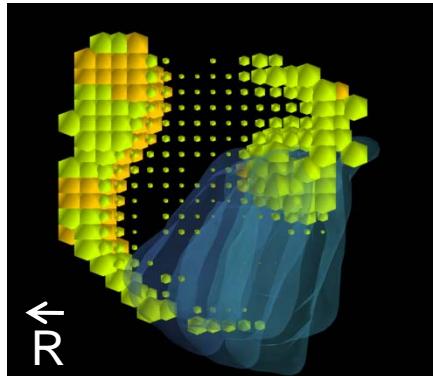
## coronal



rhombomere 2-5



rhomboemer 6-8

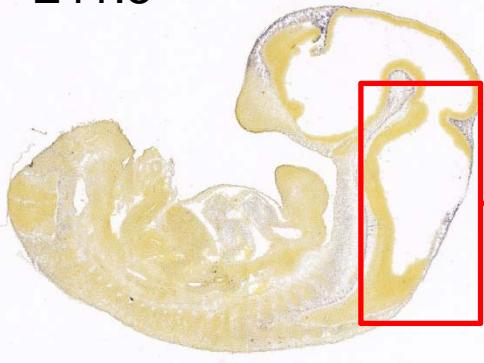


A 3D reconstruction of a brain slice, likely a CT or MRI scan, showing a glioma tumor. The tumor is highlighted in yellow and green, indicating different types of tissue or cellular components. A blue translucent surface represents the normal brain tissue. A small orange marker is placed on the tumor's surface. A black arrow points to the left side of the image.

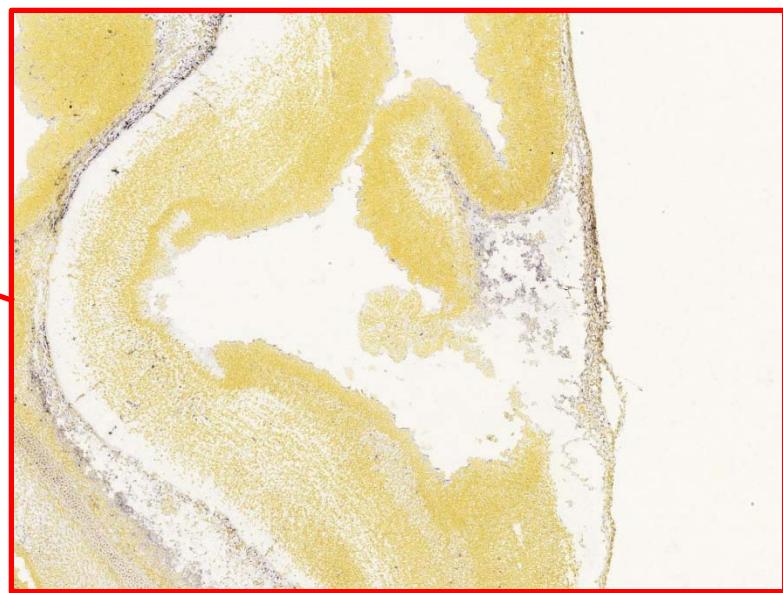
A horizontal color bar consisting of six colored squares: blue, cyan, green, yellow, orange, and red. The word "expression" is written above the bar, and the word "intensity" is written below it. The number "270" is positioned at the bottom right of the bar.

SHH-subgroup gene: *Apod*, Apolipoprotein D (E11.5)

E11.5



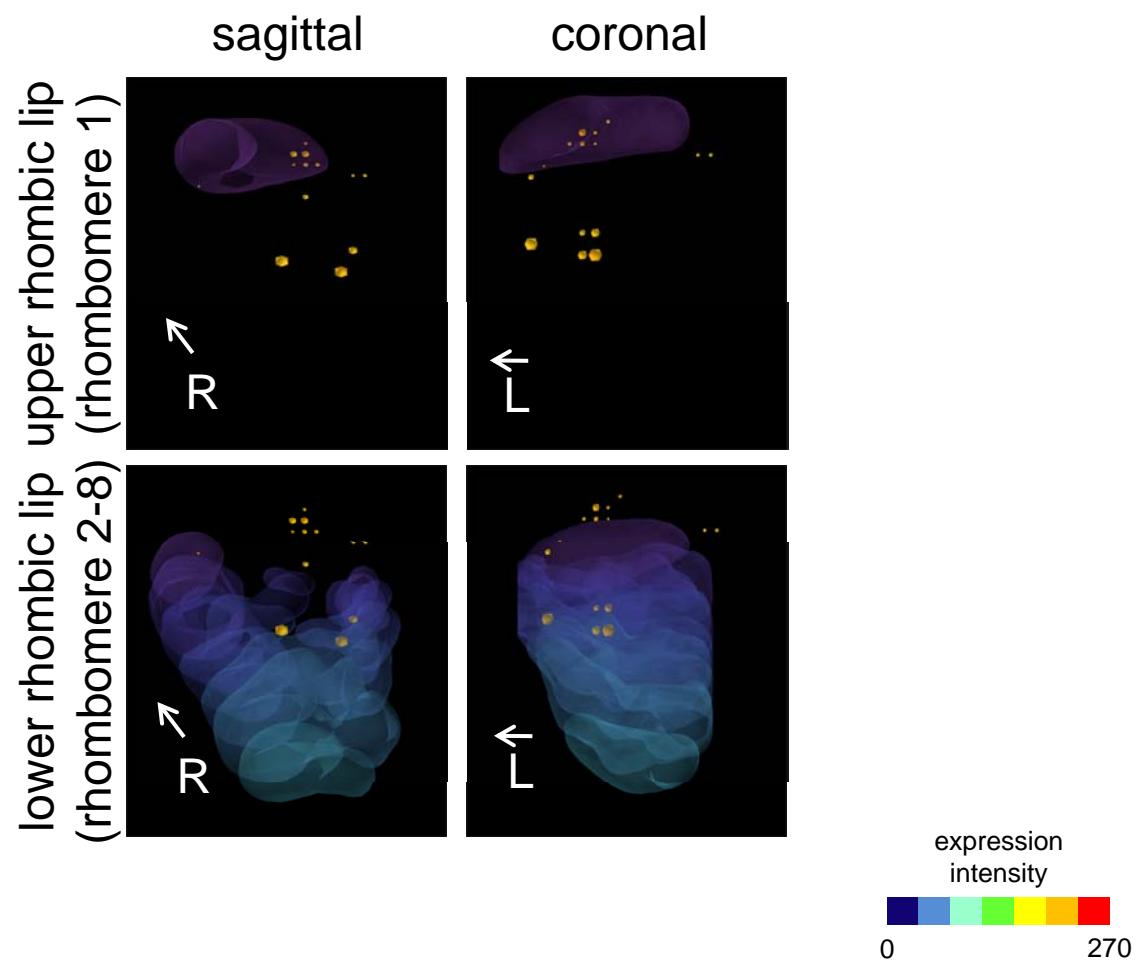
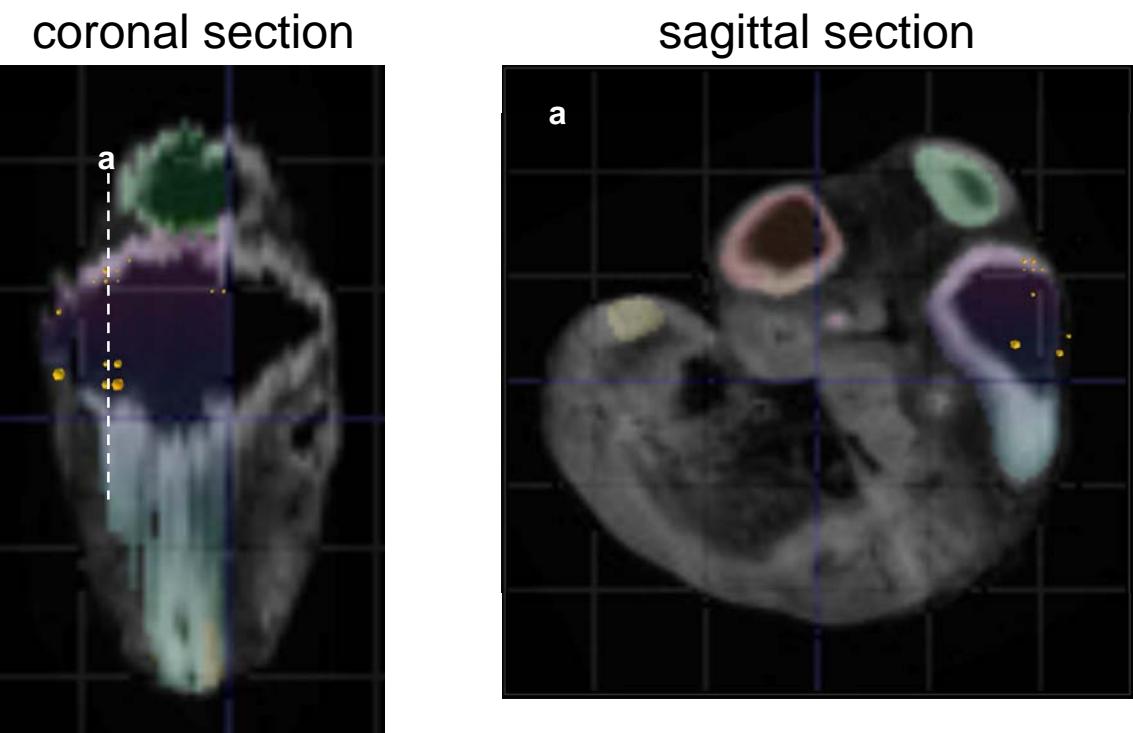
E13.5



E15.5

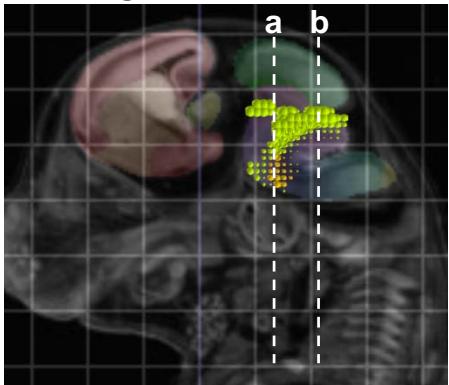


## SHH-subgroup gene: *Apop*, Apolipoprotein D (E11.5)

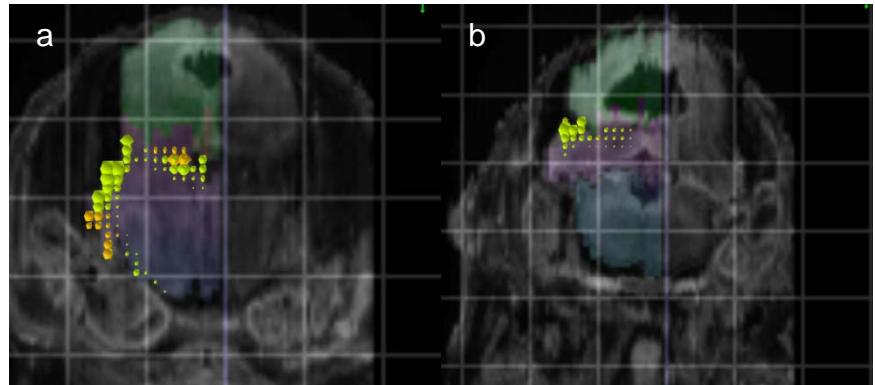


SHH-subgroup gene: *ApoD*, Apolipoprotein D (E15.5)

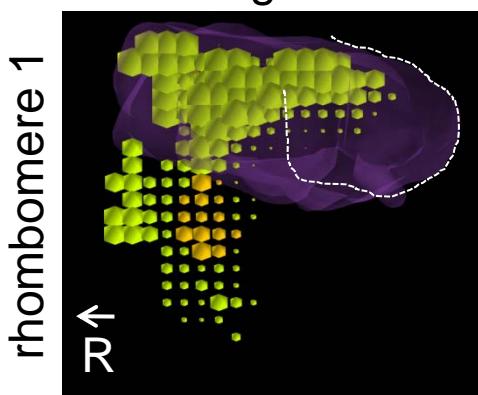
## sagittal section



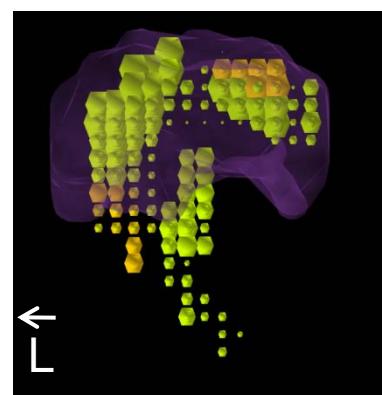
## coronal sections



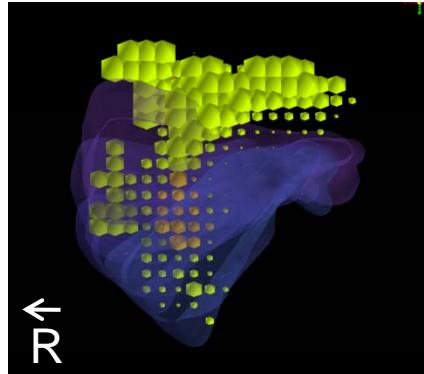
## sagittal



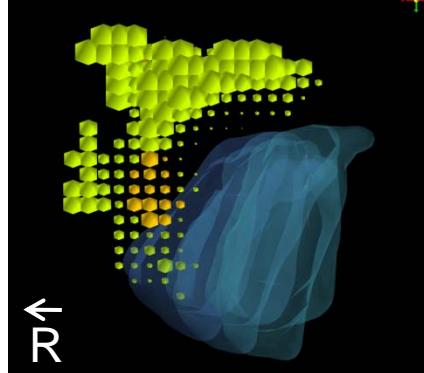
## coronal



rhombomere 2-5



rhomboemer 6-8

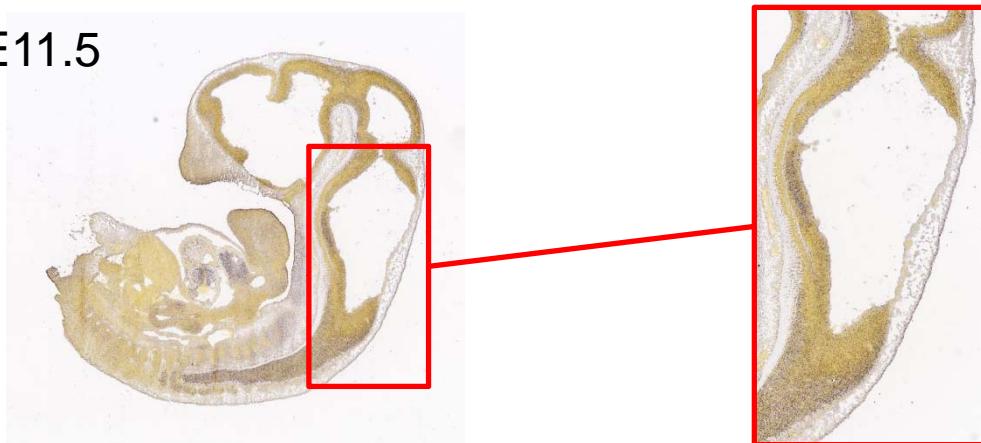


expression  
intensity

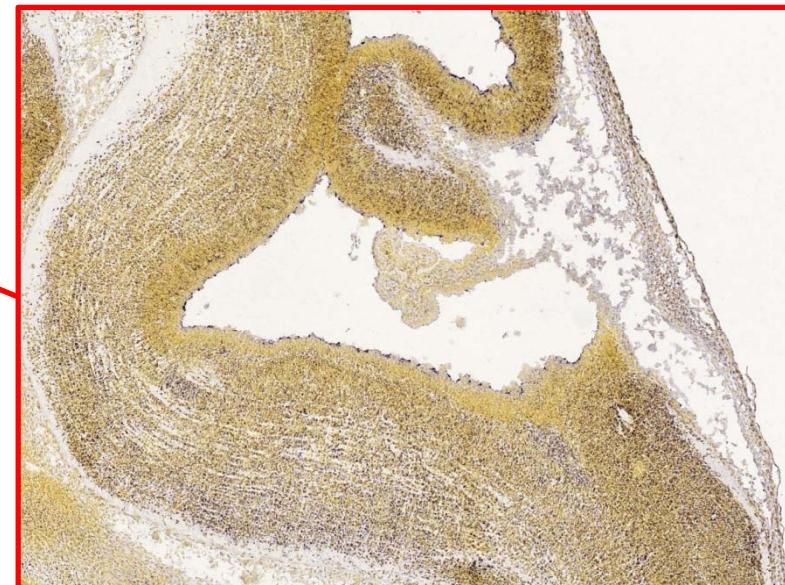
A horizontal color bar consisting of seven rectangular segments. The segments transition in a gradient from dark blue on the left to bright red on the right. Below the color bar, the numerical values 0 and 270 are displayed, likely representing the range of the color scale.

## SHH-subgroup gene: *Csnk1e*, Casein kinase 1 epsilon (*in situ*)

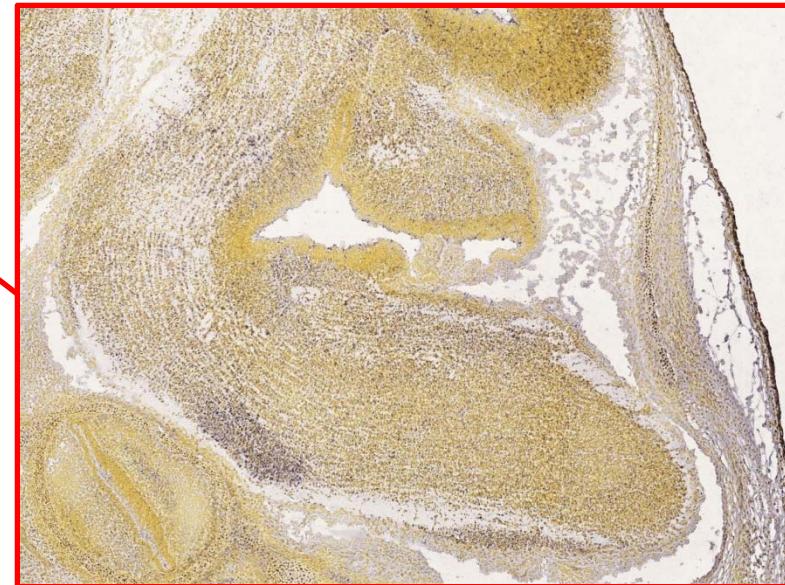
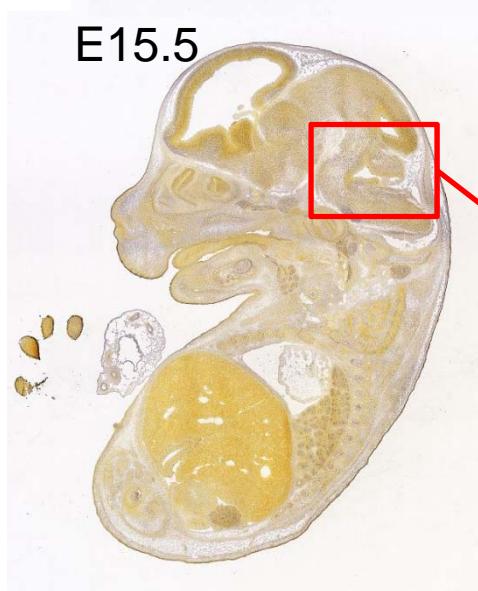
E11.5



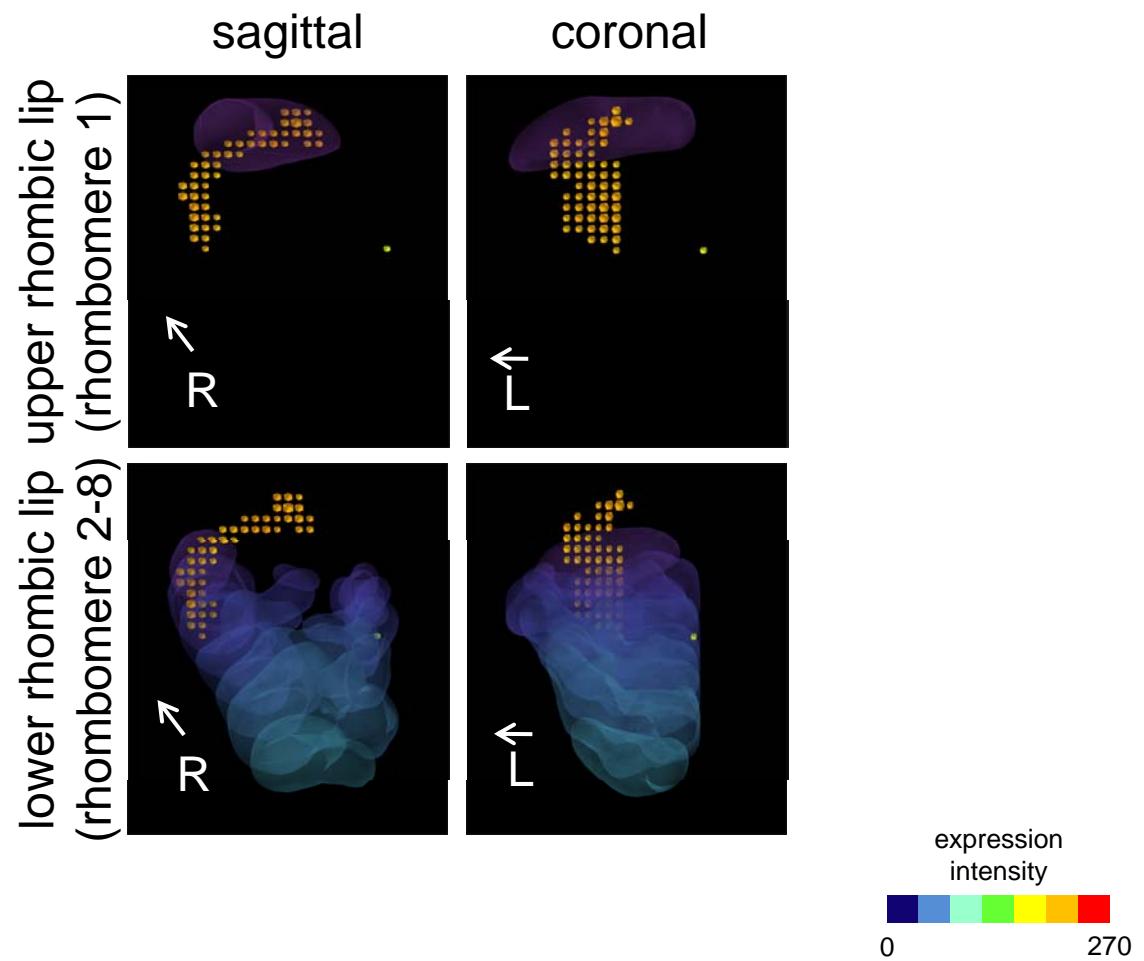
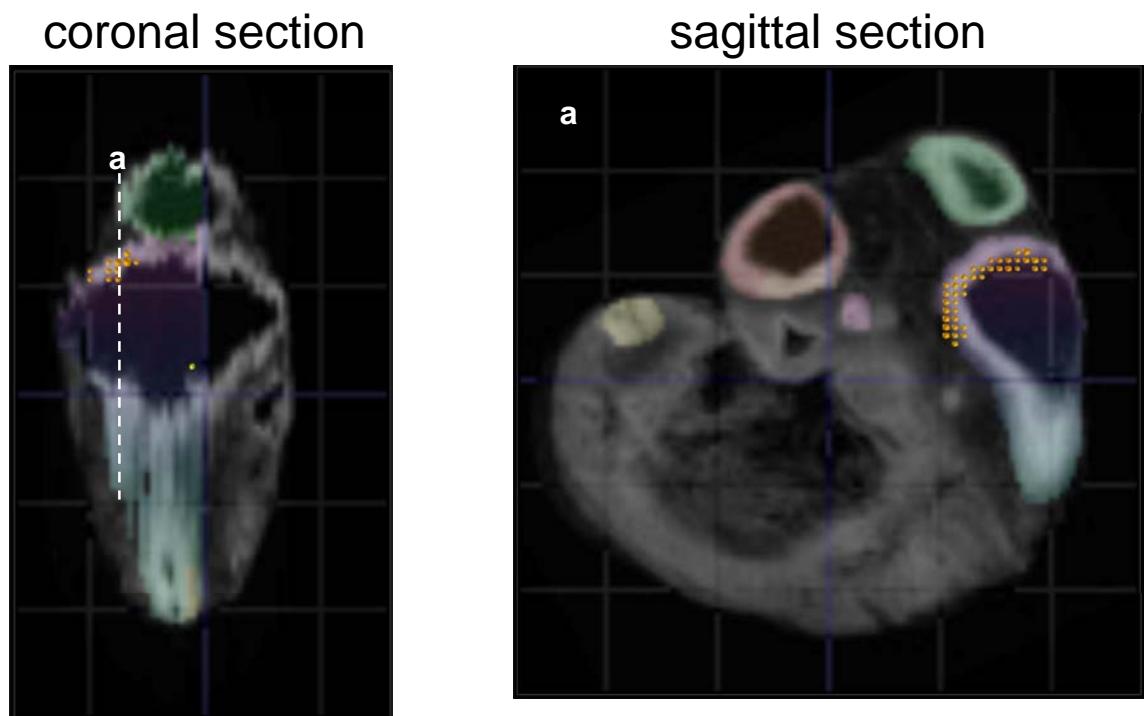
E13.5



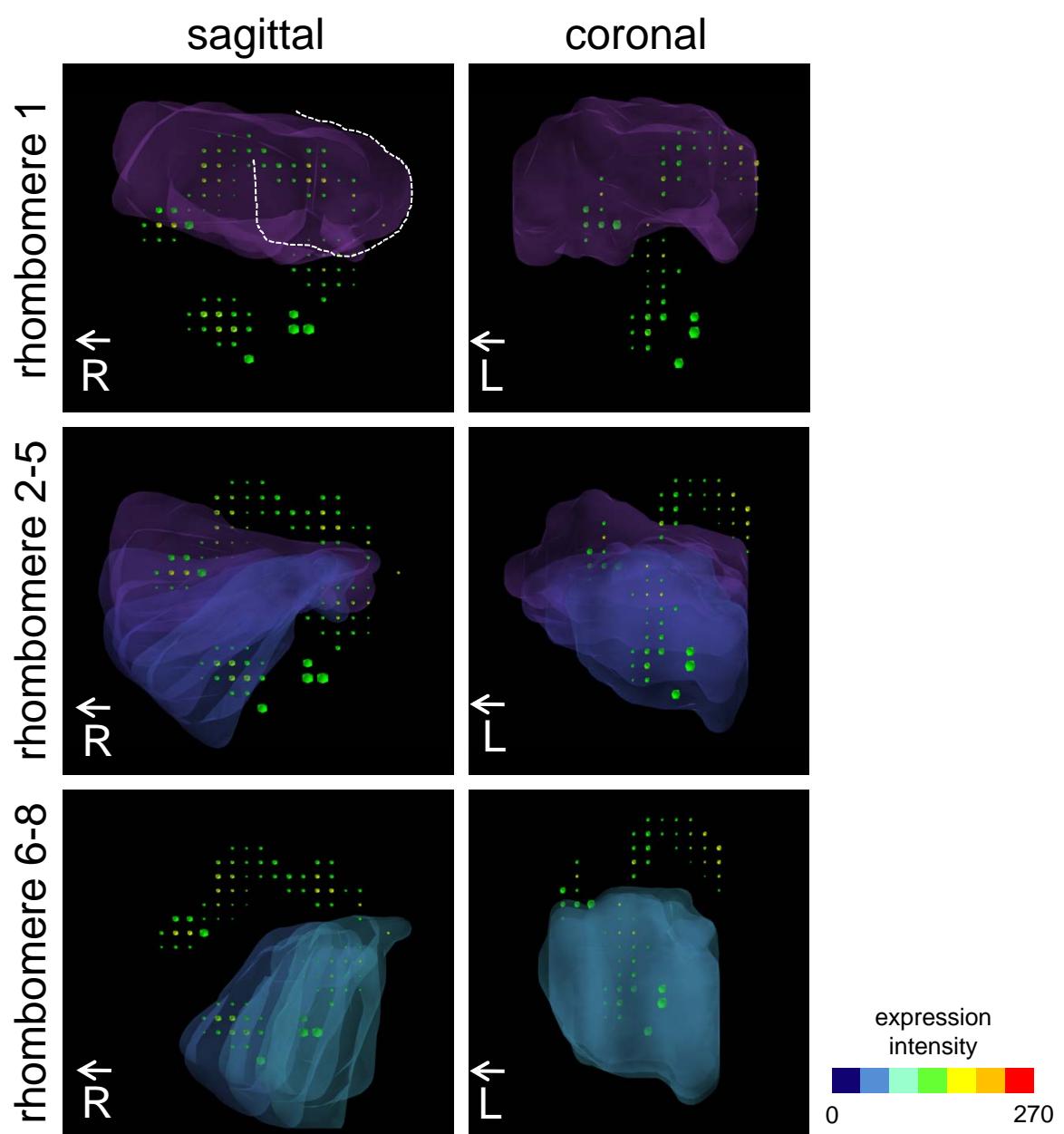
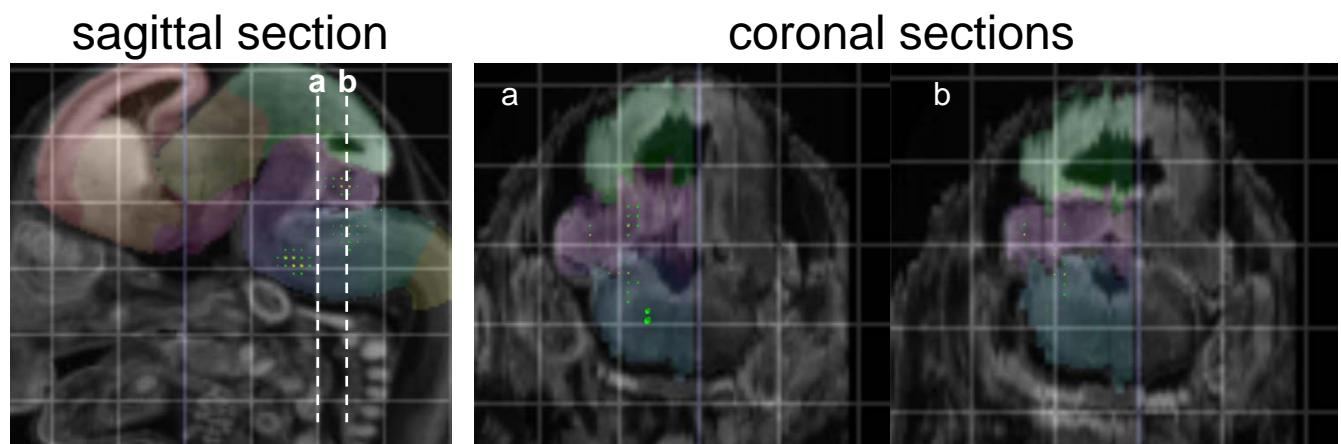
E15.5



## SHH-subgroup gene: *Csnk1e*, Casein kinase 1 epsilon (E11.5)



## SHH-subgroup gene: *Csnk1e*, Casein kinase 1 epsilon (E15.5)

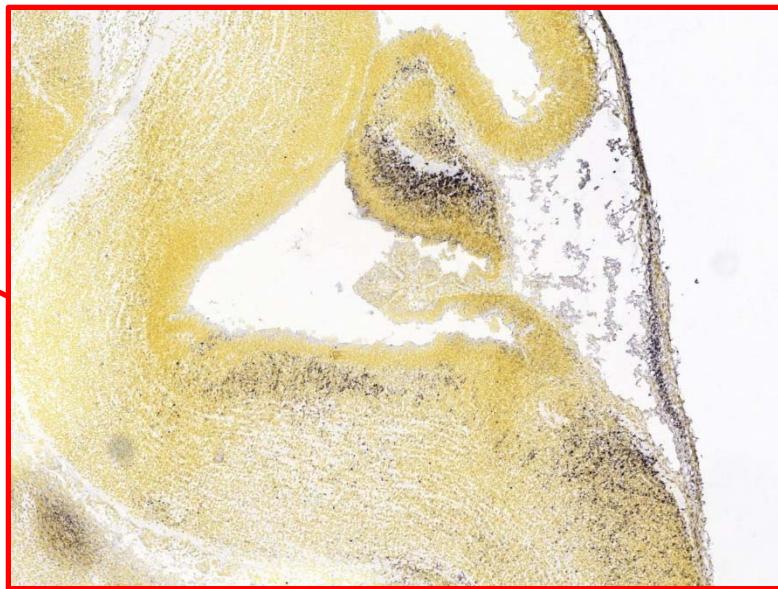


SHH-subgroup gene: *Unc5c*, Unc-5 homolog C (*in situ*)

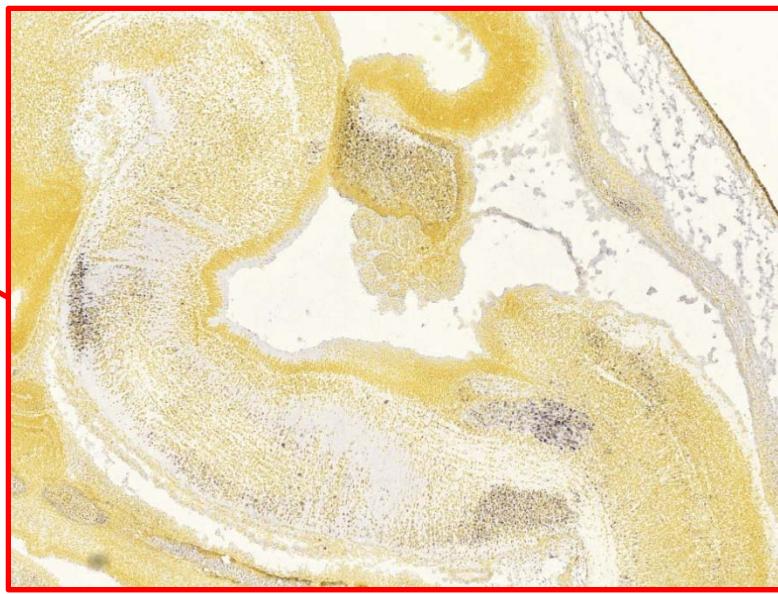
E11.5



E13.5

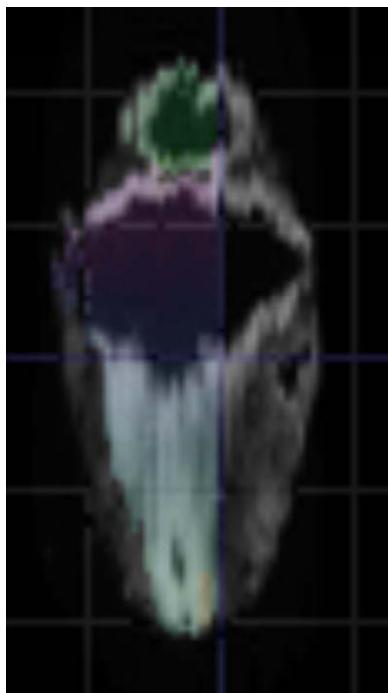


E15.5

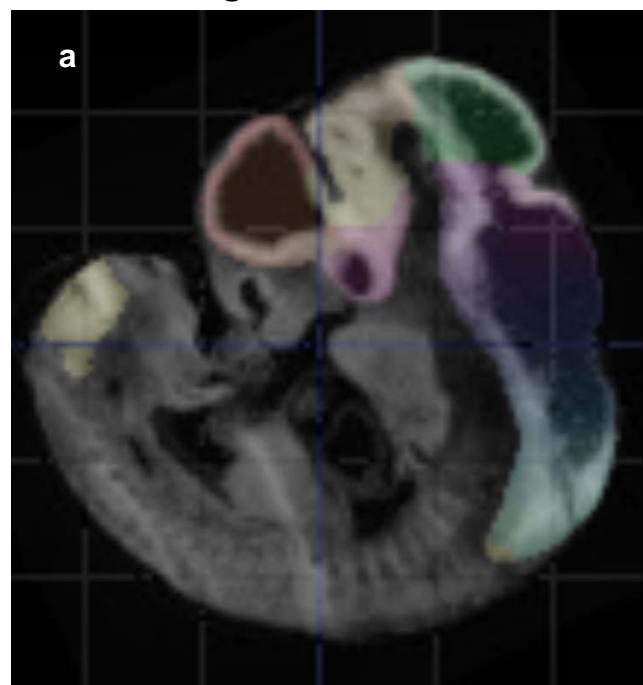


## SHH-subgroup gene: *Unc5c*, Unc-5 homolog C (E11.5)

coronal section



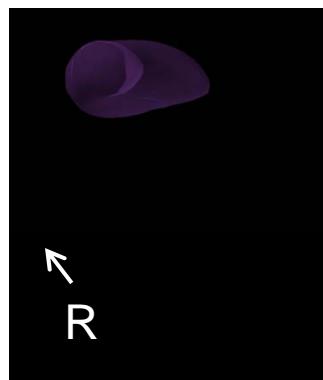
sagittal section



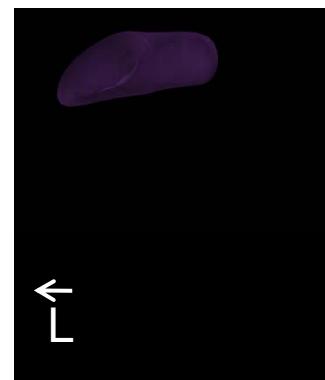
sagittal

coronal

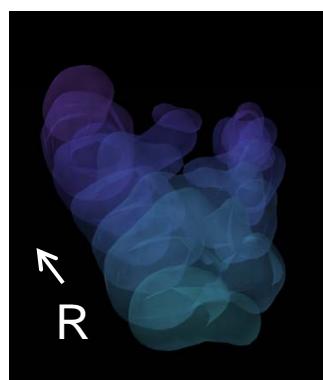
lower rhombic lip upper rhombic lip  
(rhombomere 2-8) (rhombomere 1)



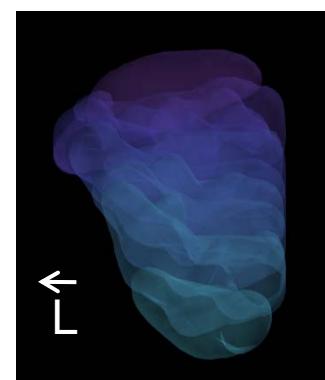
R →



↖ R



R →



↖

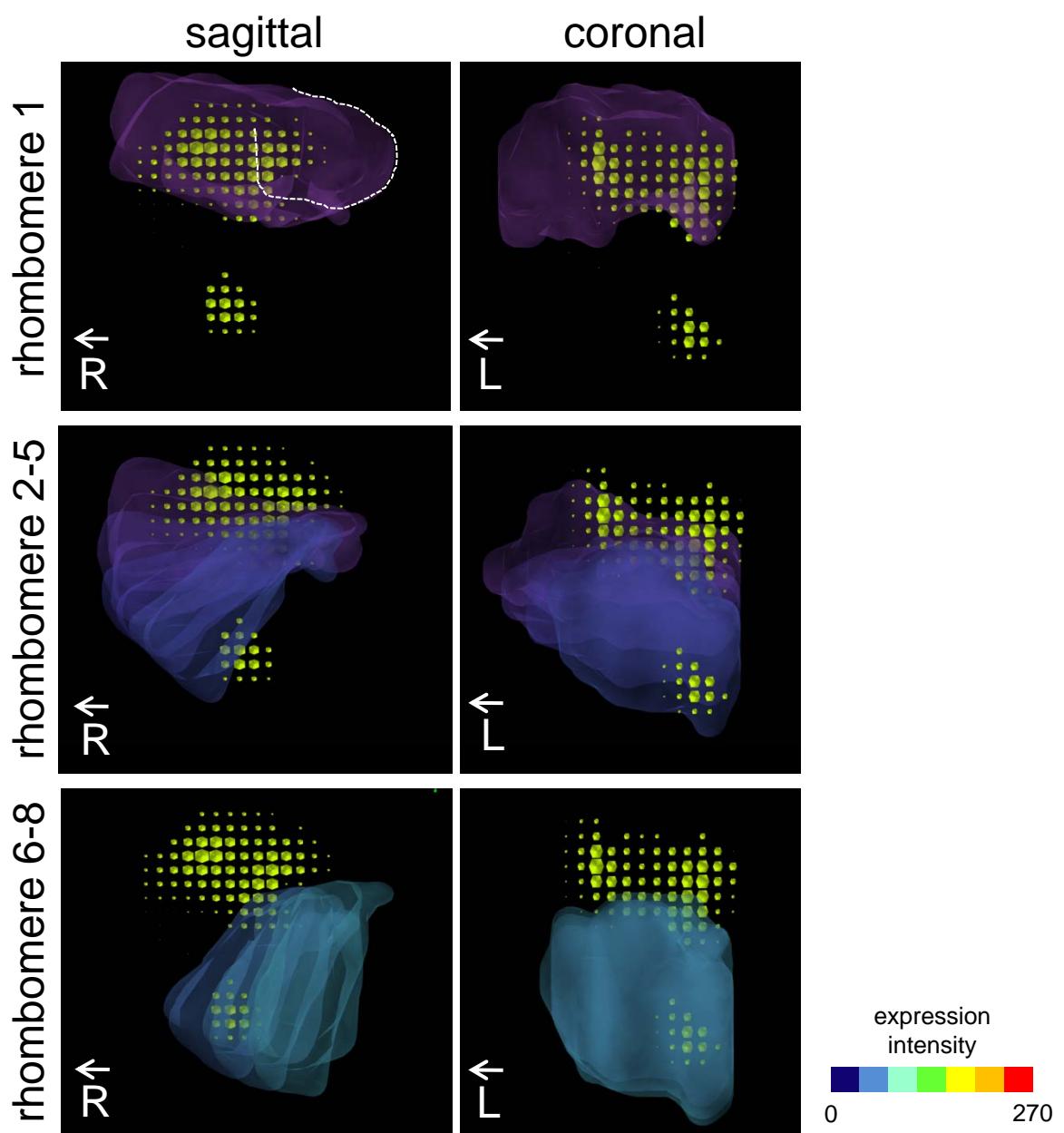
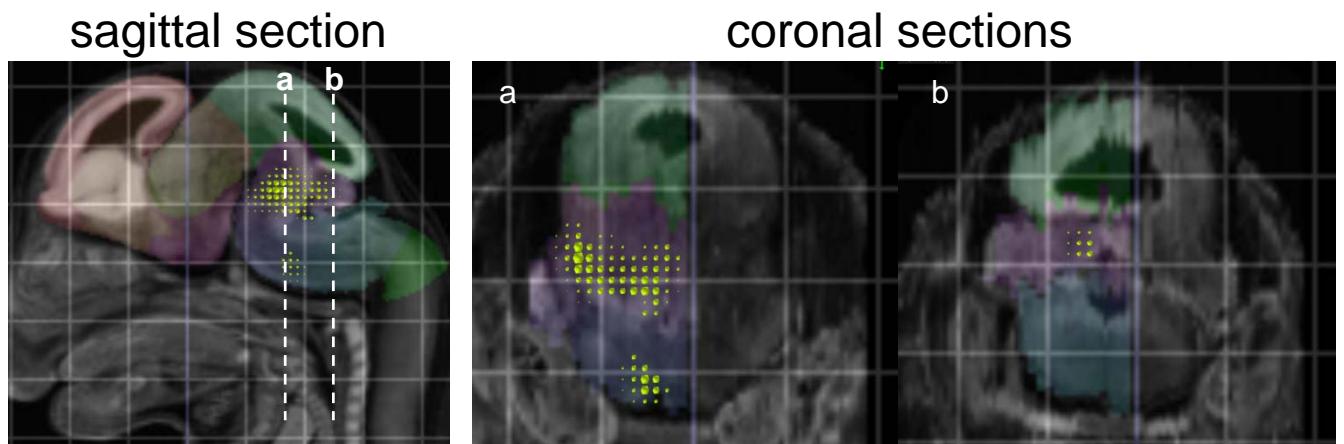
expression  
intensity



0

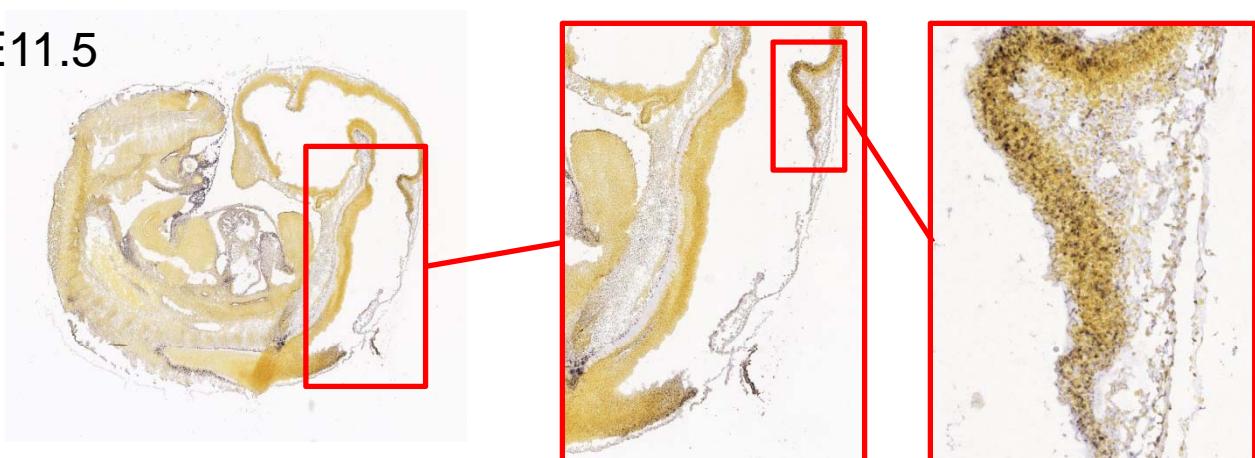
270

## SHH-subgroup gene: *Unc5c*, Unc-5 homolog C (E15.5)



## SHH-subgroup gene: *Col4a5*, Procollagen IVa5 (*in situ*)

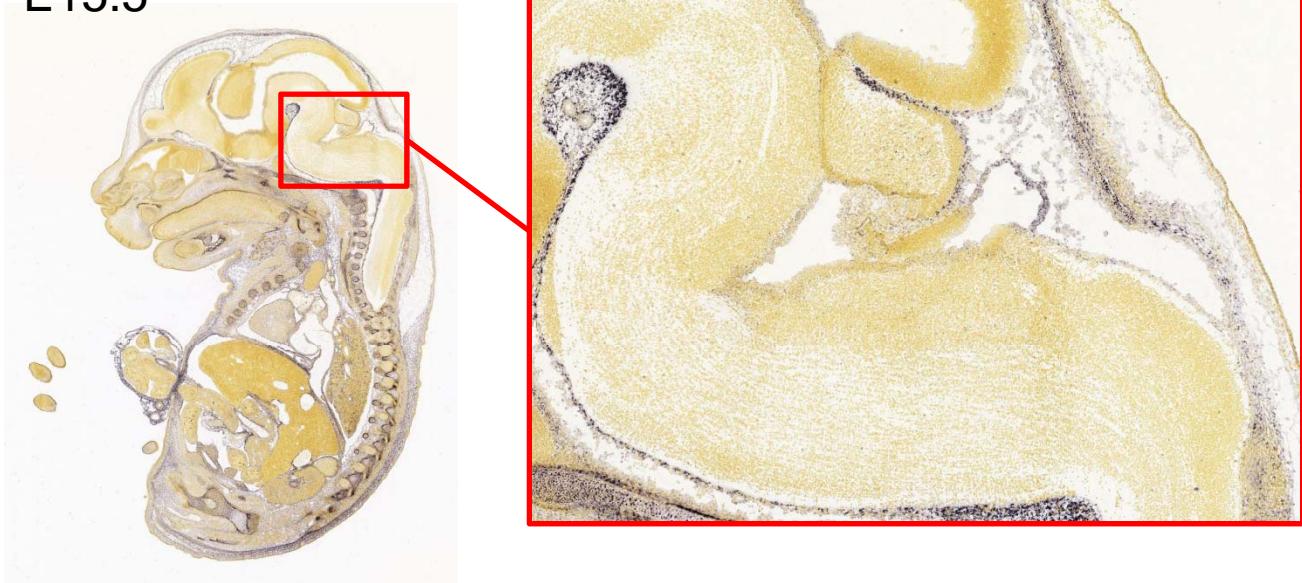
E11.5



E13.5

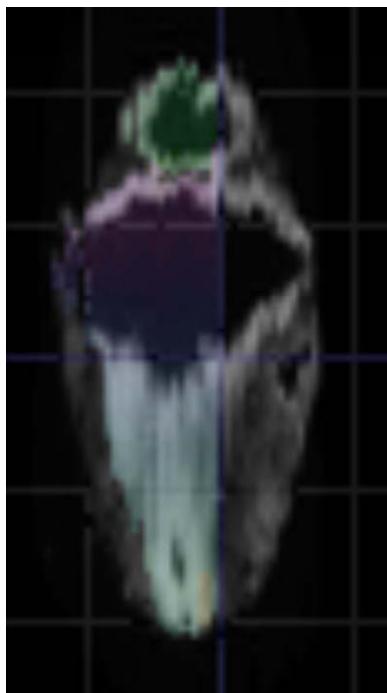


E15.5

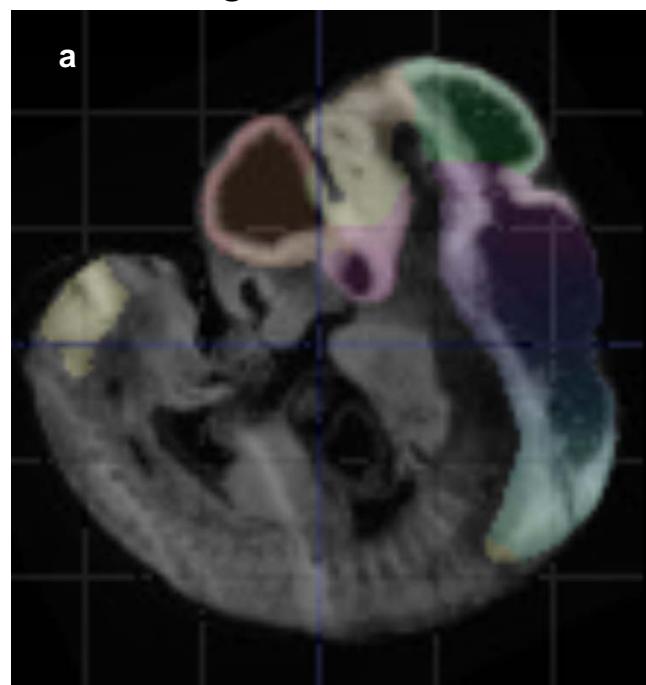


## SHH-subgroup gene: *Col4a5*, Procollagen IVa5 (E11.5)

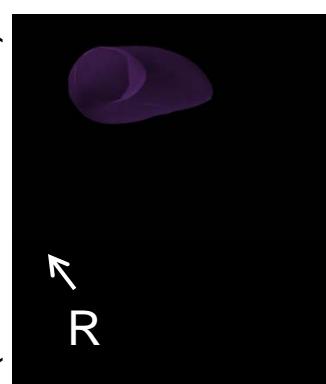
coronal section



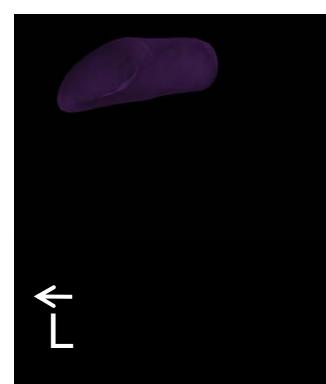
sagittal section



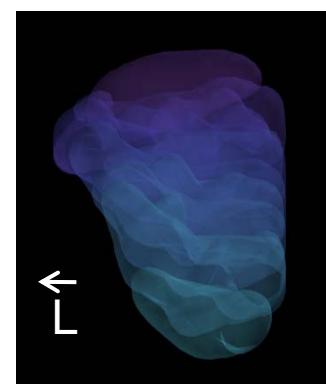
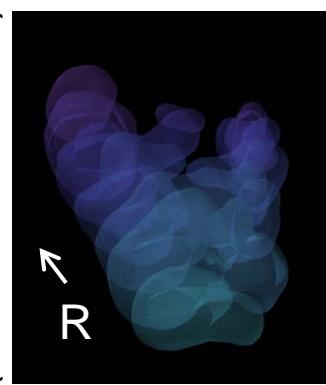
sagittal



coronal



lower rhombic lip upper rhombic lip  
(rhombomere 2-8) (rhombomere 1)



expression  
intensity



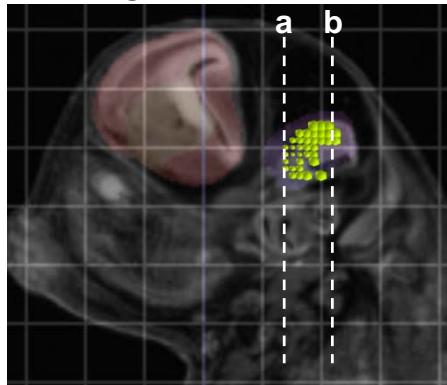
0

270

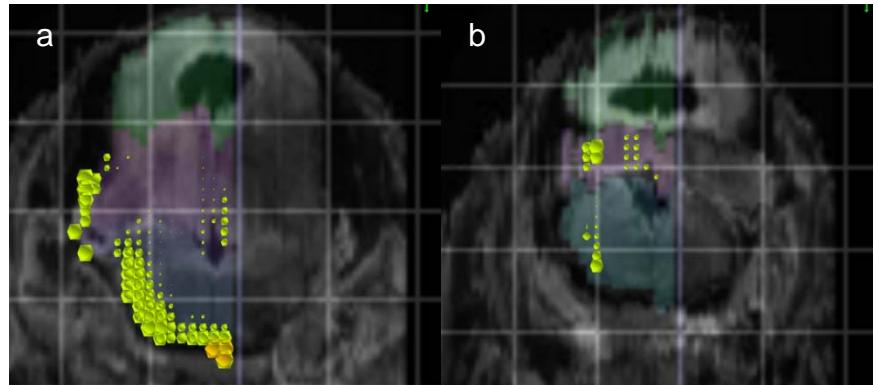
0

SHH-subgroup gene: *Col4a5*, Procollagen IVa5 (E15.5)

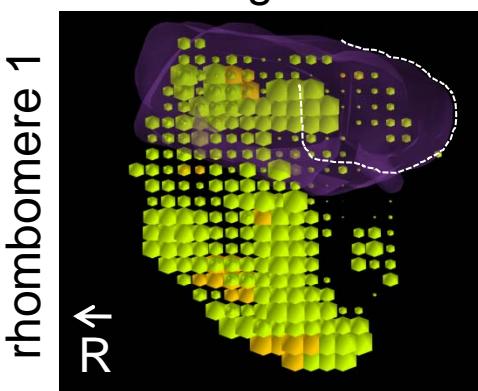
# sagittal section



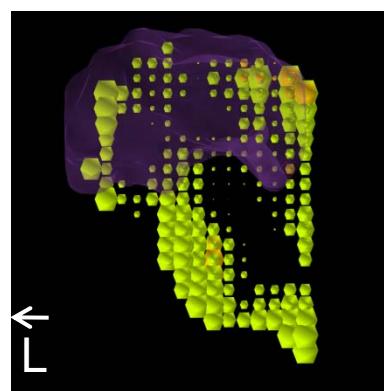
## coronal sections



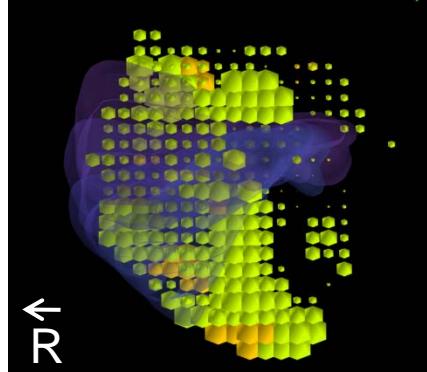
sagittal



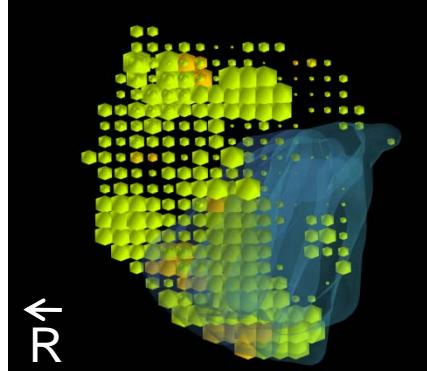
## coronal



rhombomerie 2-5



rhombomer 6-8



A 3D reconstruction of a brain slice, likely from an MRI scan. The image shows a large, irregularly shaped lesion in the center-right portion of the brain, appearing in shades of blue and purple. The surrounding tissue is represented by yellow and green cubes. A small white arrow in the bottom-left corner points towards the left side of the image.

expression  
intensity

A horizontal color bar consisting of seven equal-width rectangular segments. The colors transition from dark blue on the left to light blue, cyan, green, yellow, orange, and finally red on the right.

## SHH-subgroup gene: *Notch2*, Notched 2 (*in situ*)

E11.5



E13.5

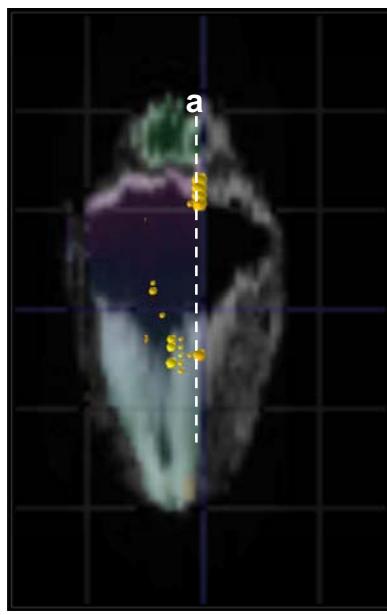


E15.5

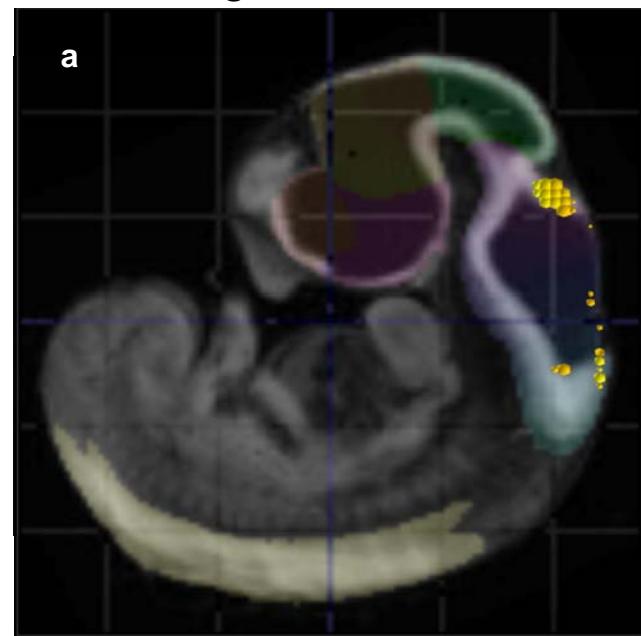


## SHH-subgroup gene: *Notch2*, Notched 2 (E11.5)

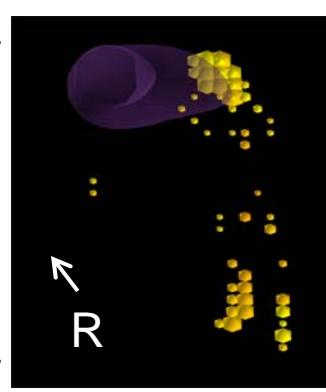
coronal section



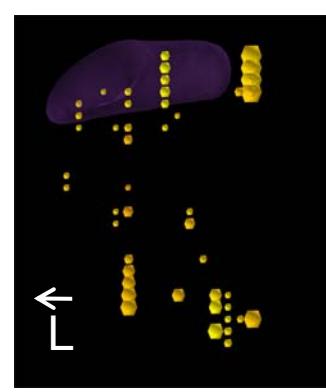
sagittal section



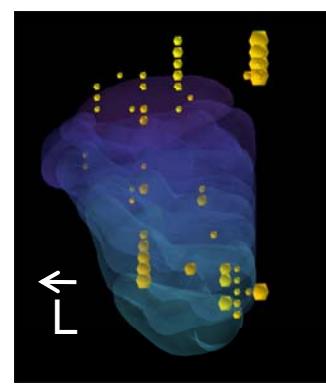
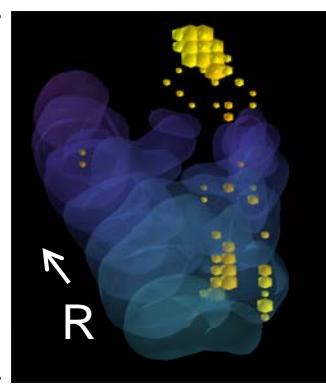
sagittal



coronal



lower rhombic lip upper rhombic lip  
(rhombomere 2-8) (rhombomere 1)



expression intensity

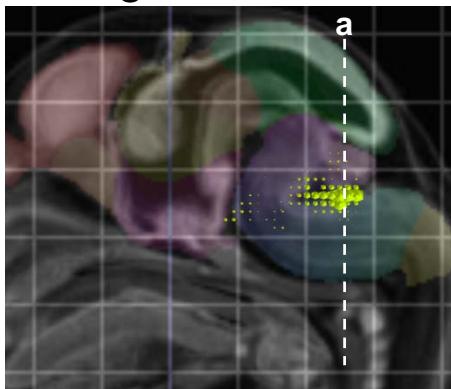


0

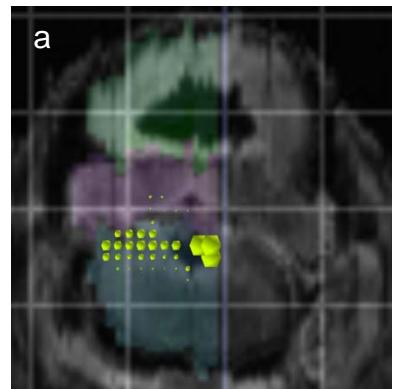
270

## SHH-subgroup gene: *Notch2*, Notched 2 (E15.5)

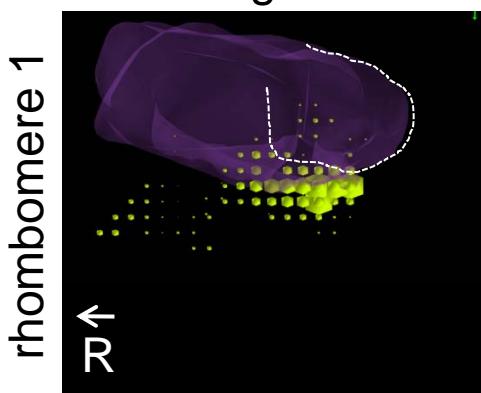
sagittal section



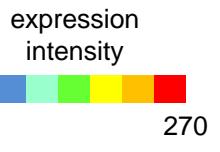
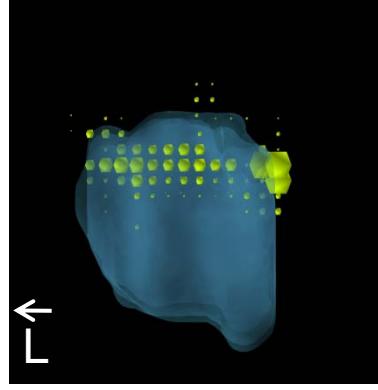
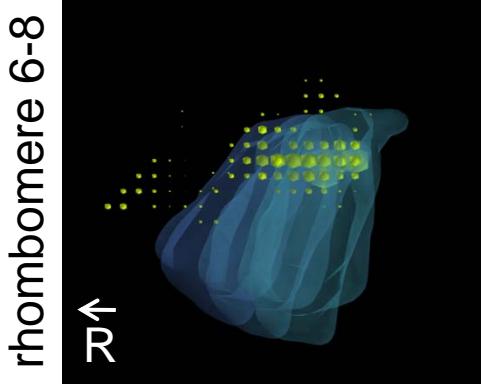
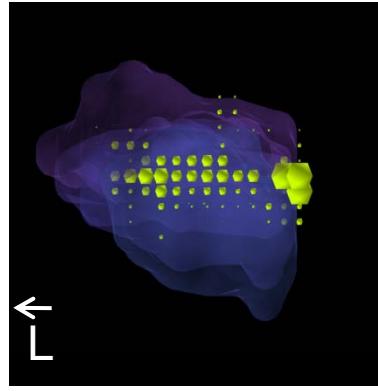
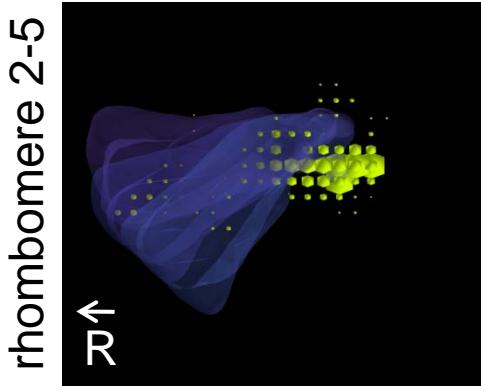
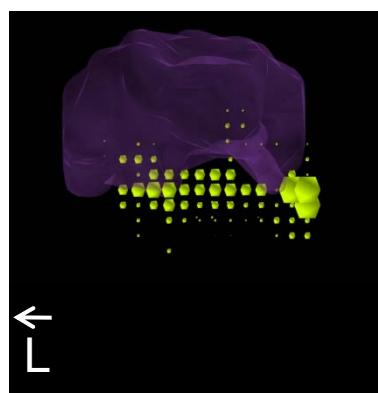
coronal section



sagittal

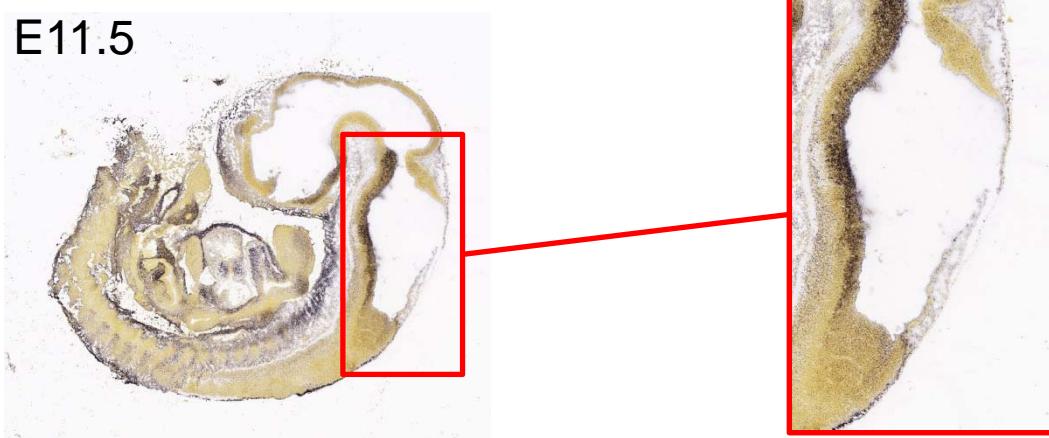


coronal



SHH-subgroup gene: *Sfrp1*, Secreted frizzled related protein 1 (*in situ*)

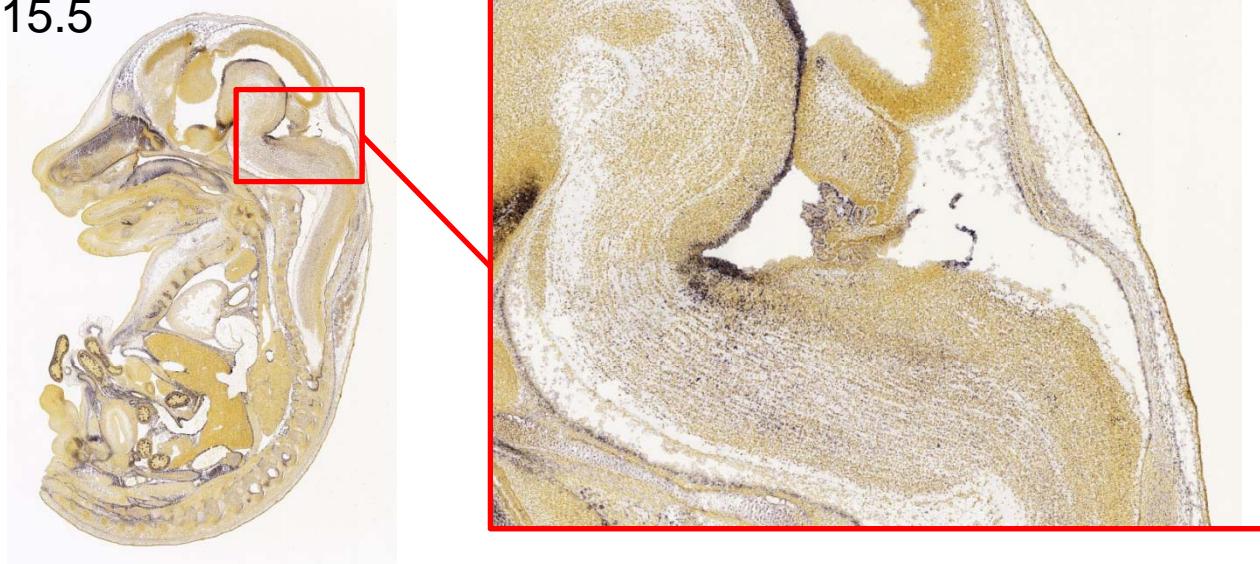
E11.5



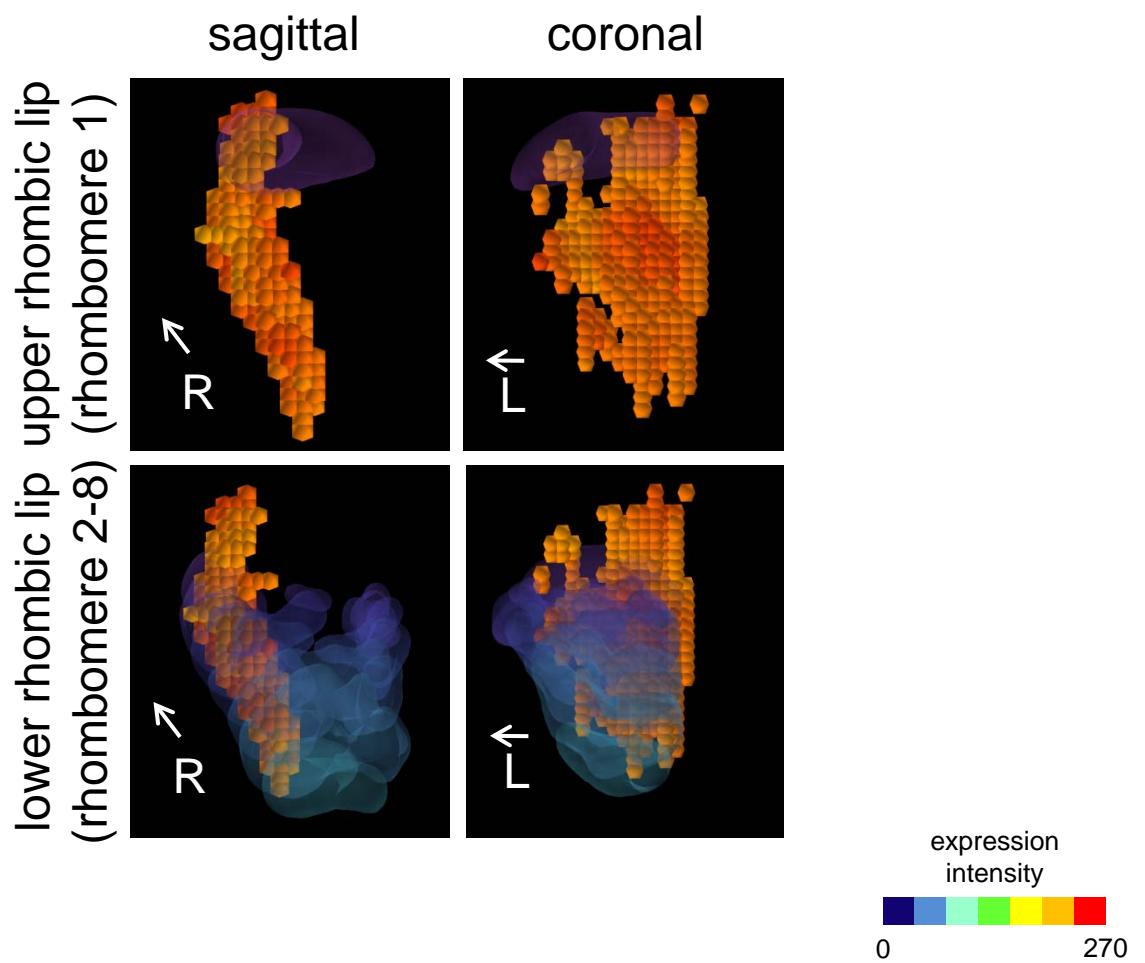
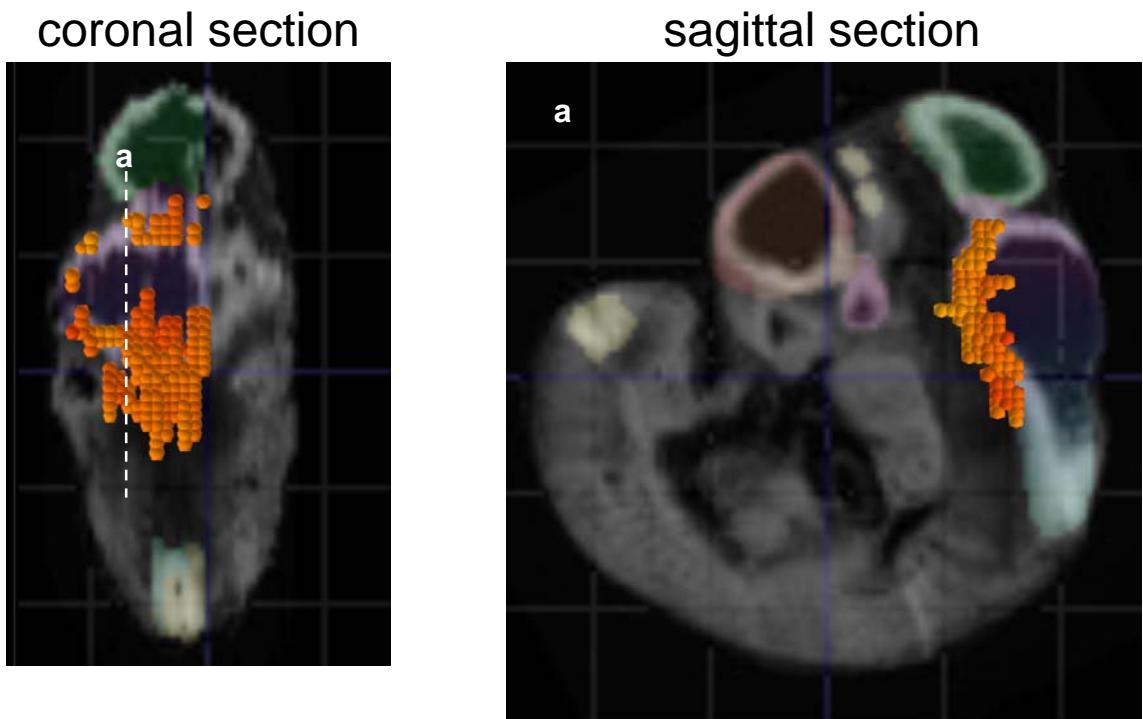
E13.5



E15.5

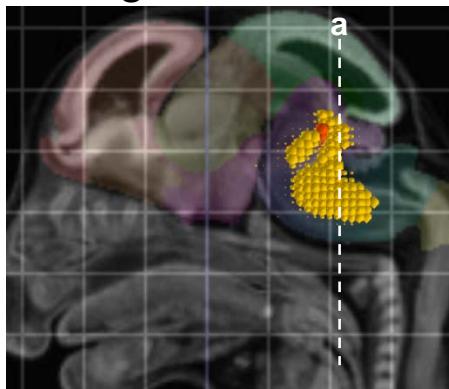


SHH-subgroup gene: *Sfrp1*, Secreted frizzled related protein 1 (E11.5)

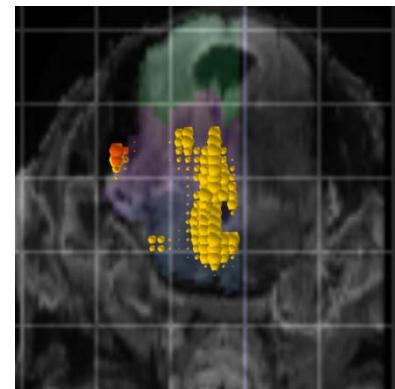


SHH-subgroup gene: *Sfrp1*, Secreted frizzled related protein 1 (E15.5)

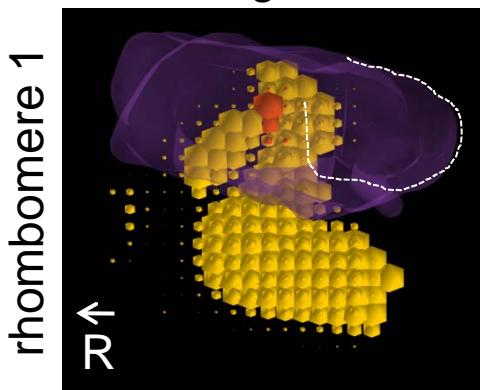
sagittal section



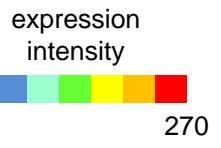
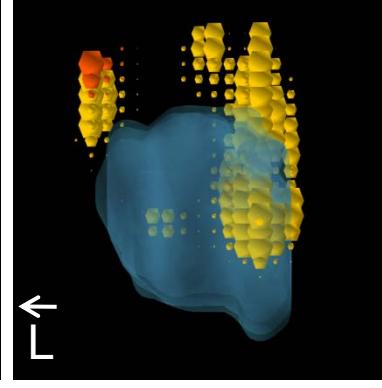
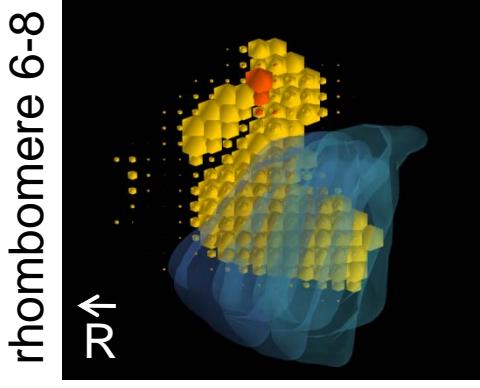
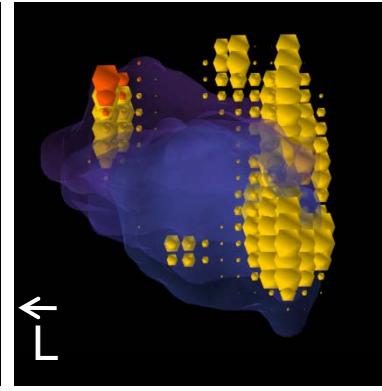
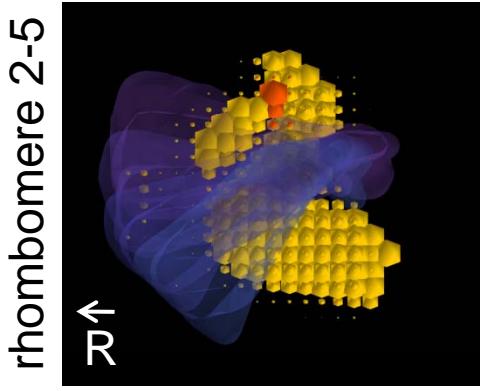
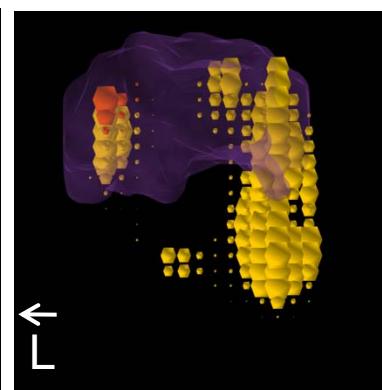
coronal section



sagittal

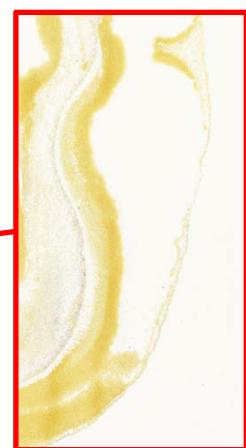


coronal

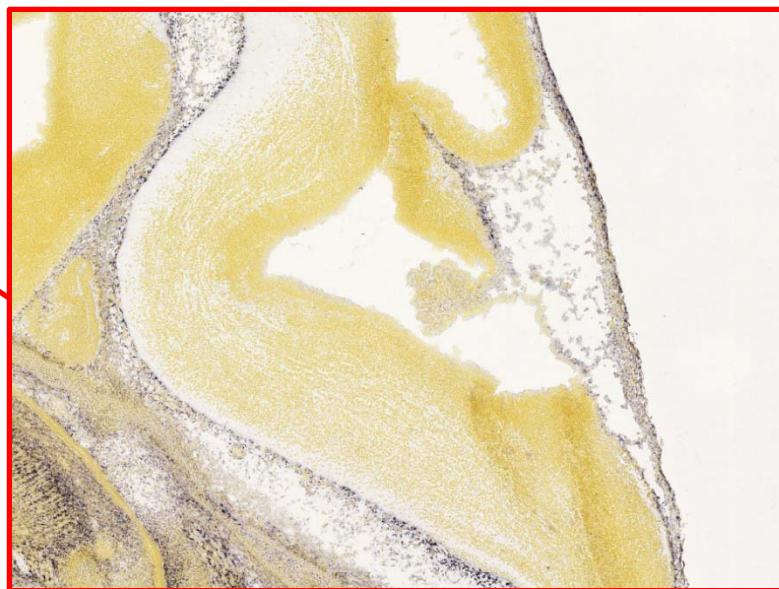


SHH-subgroup gene: *Col6a1*, Procollagen VI a1 (*in situ*)

E11.5



E13.5

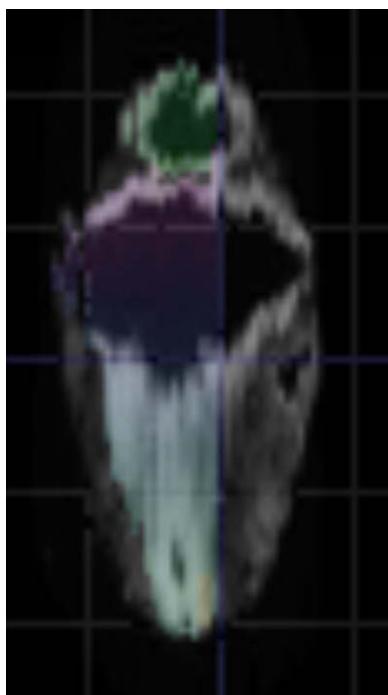


E15.5

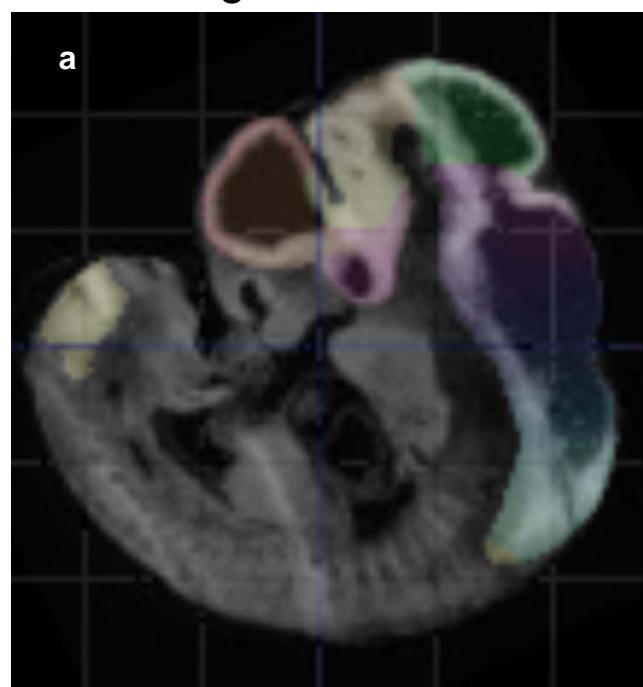


SHH-subgroup gene: *Col6a1*, Procollagen VI a1 (E11.5)

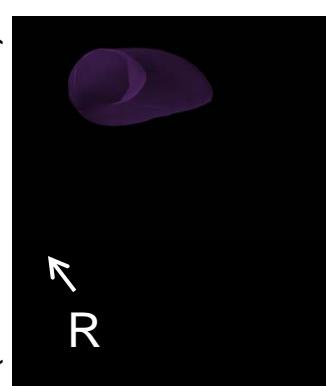
coronal section



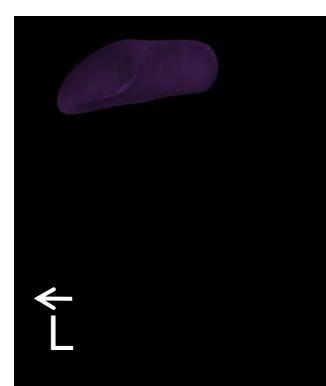
sagittal section



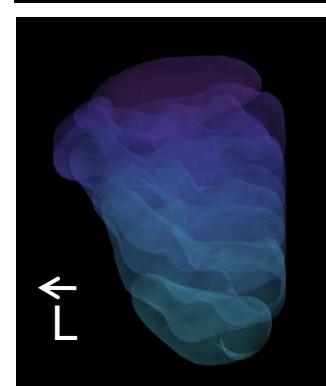
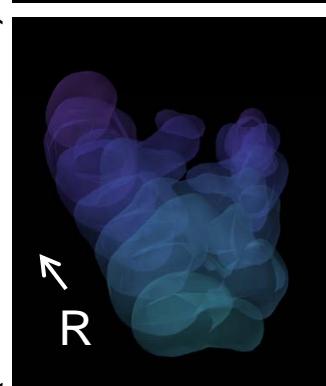
sagittal



coronal



lower rhombic lip upper rhombic lip  
(rhombomere 2-8) (rhombomere 1)

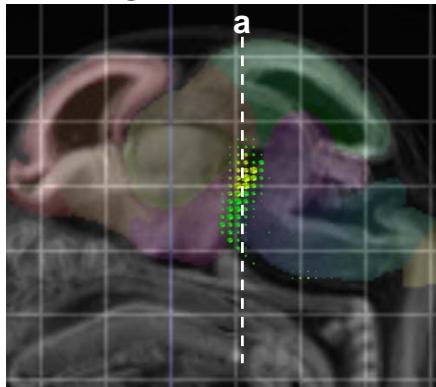


expression intensity

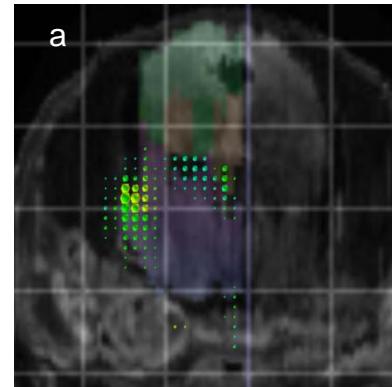


## SHH-subgroup gene: *Col6a1*, Procollagen VI a1 (E15.5)

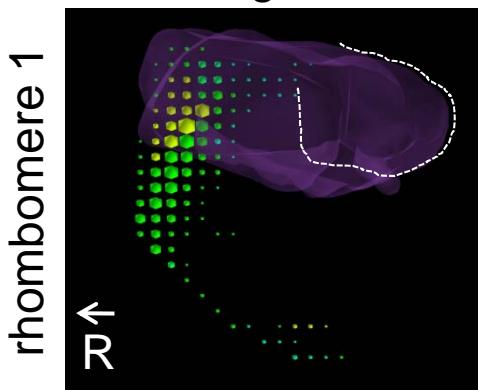
sagittal section



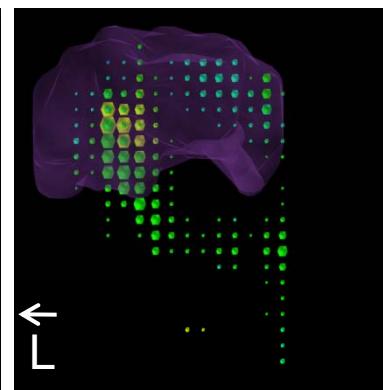
coronal section



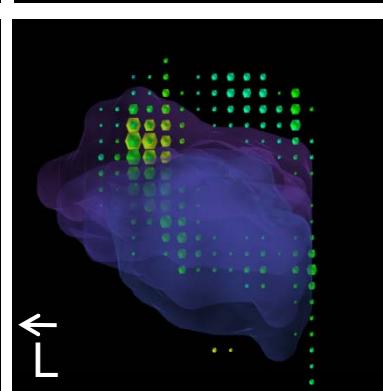
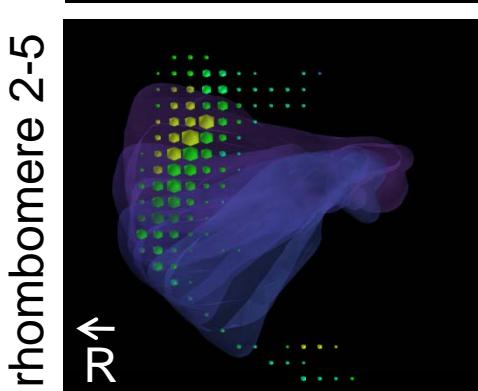
sagittal



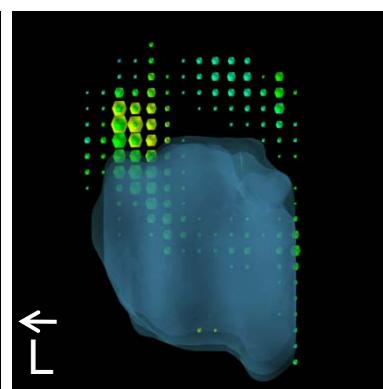
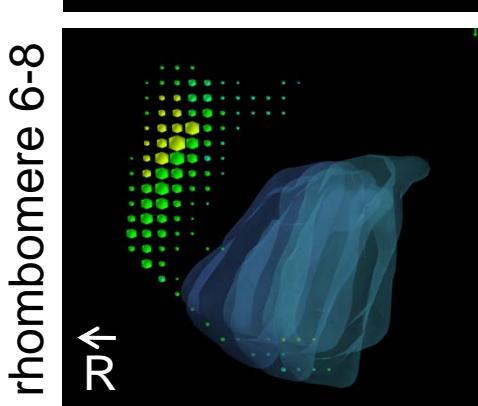
coronal



rhombomere 2-5



rhombomere 6-8

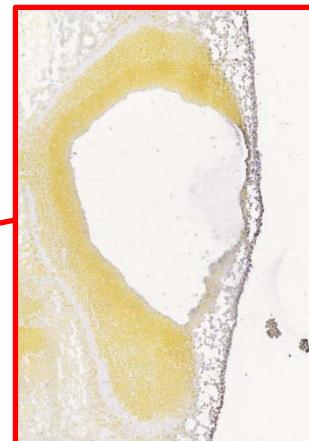
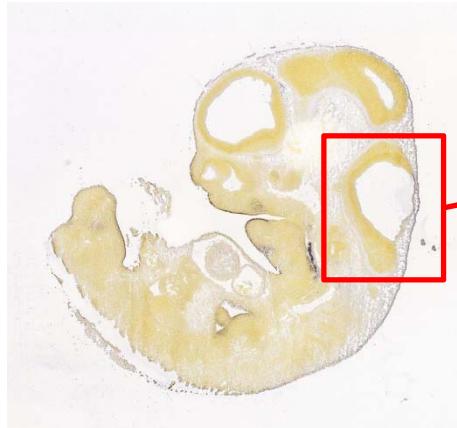


expression  
intensity

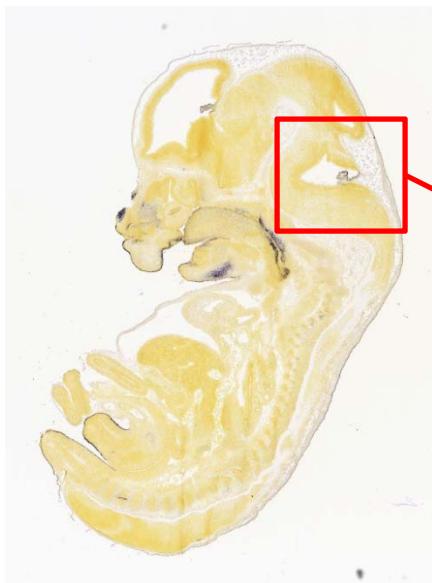


SHH-subgroup gene: *Sostdc1*, Sclerostin domain containing 1 (*in situ*)

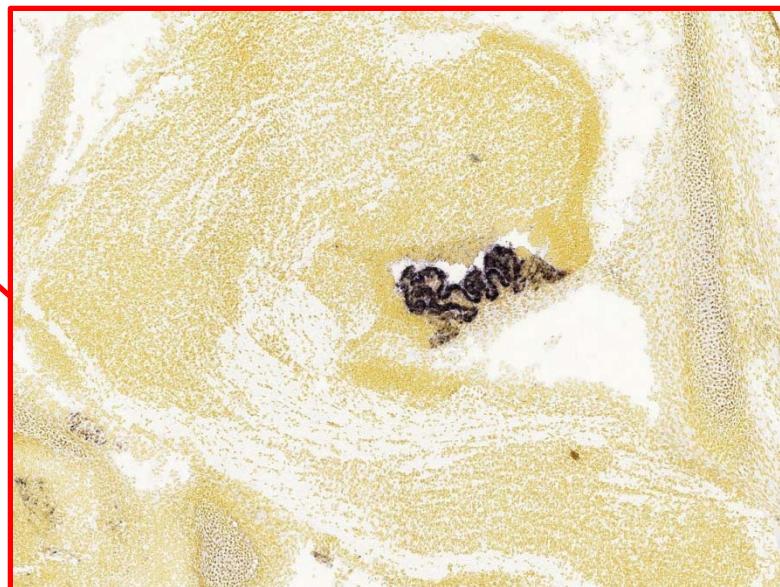
E11.5



E13.5



E15.5

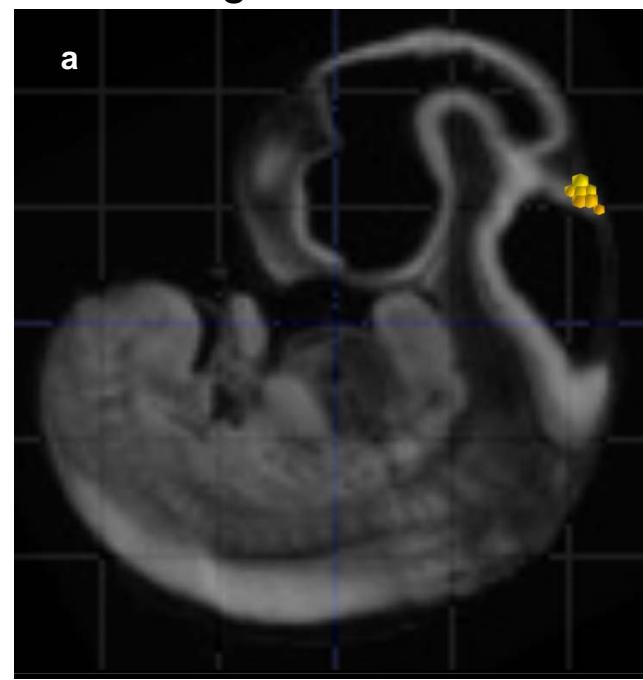


SHH-subgroup gene: *Sostdc1*, Sclerostin domain containing 1 (E11.5)

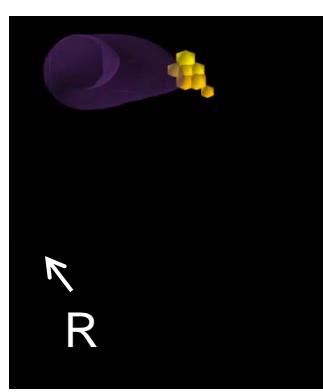
## coronal section



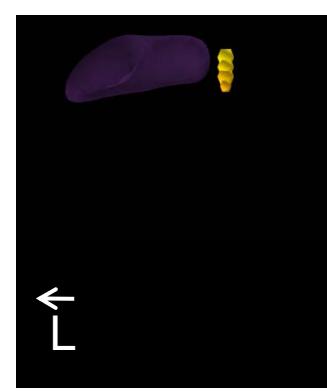
## sagittal section



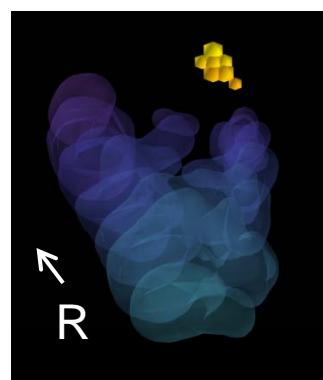
## sagittal



## coronal



lower rhombic lip upper rhombic lip  
(rhombomere 2-8) (rhombomere 1)



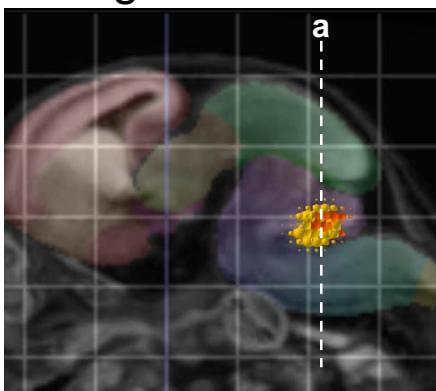
A 3D rendering of a brain region, likely the amygdala, shown in a color gradient from purple at the top to yellow at the bottom. The region is roughly spherical and elongated along the vertical axis. A small yellow 3D cube is positioned to the right of the main structure.

expression  
intensity

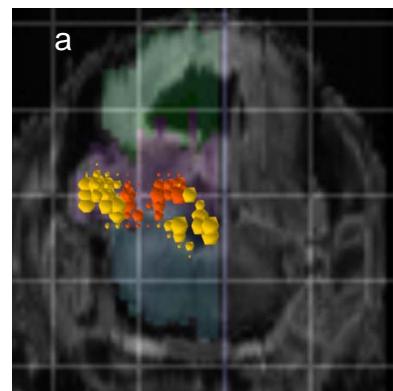


## SHH-subgroup gene: *Sostdc1*, Sclerostin domain containing 1 (E15.5)

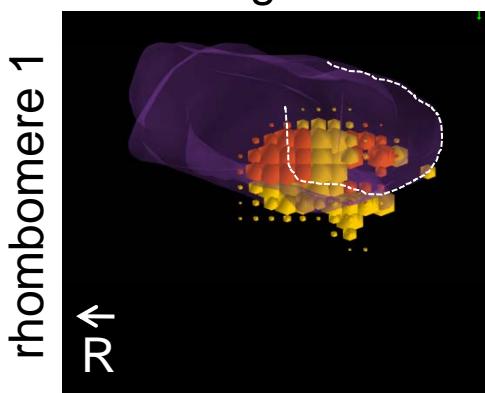
sagittal section



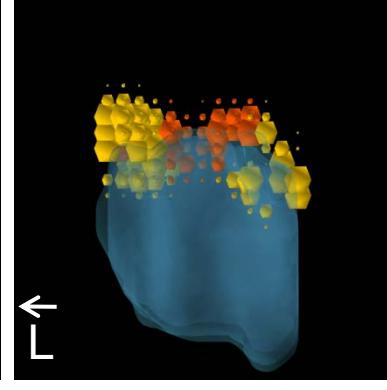
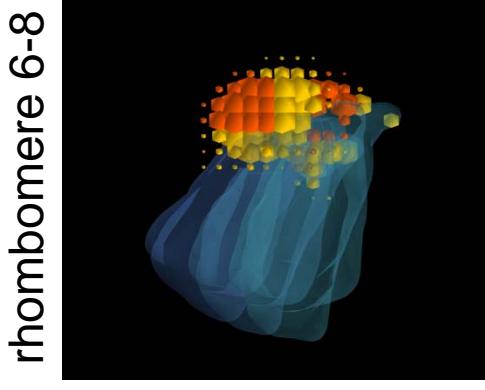
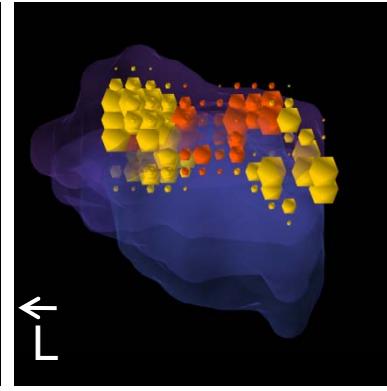
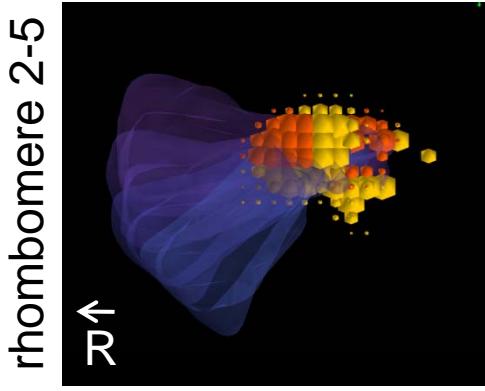
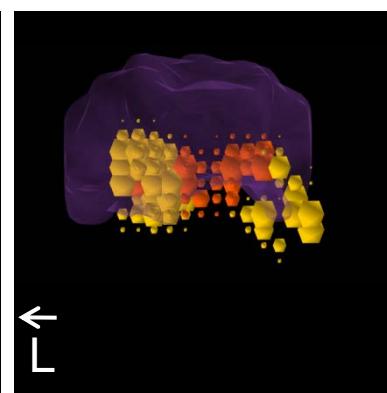
coronal section



sagittal



coronal



expression  
intensity

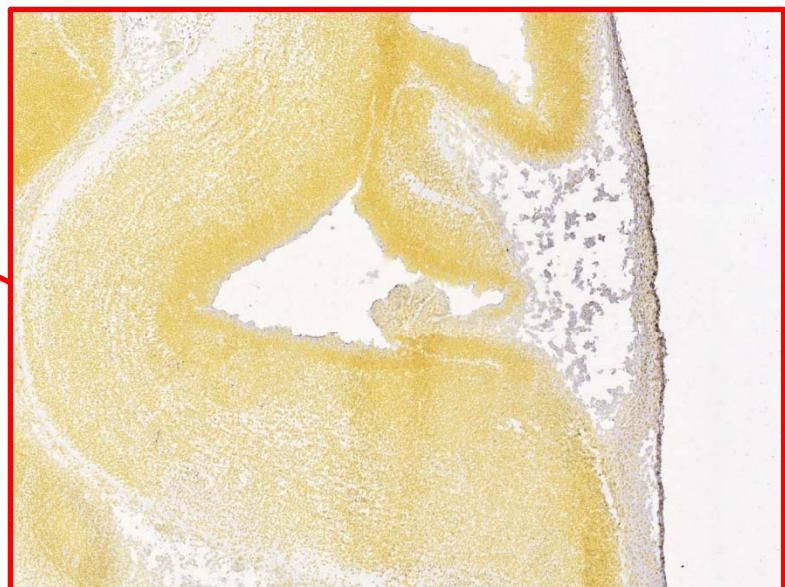


SHH-subgroup gene: *Chrna7*, Cholinergic receptor nicotinic alpha 7 (*in situ*)

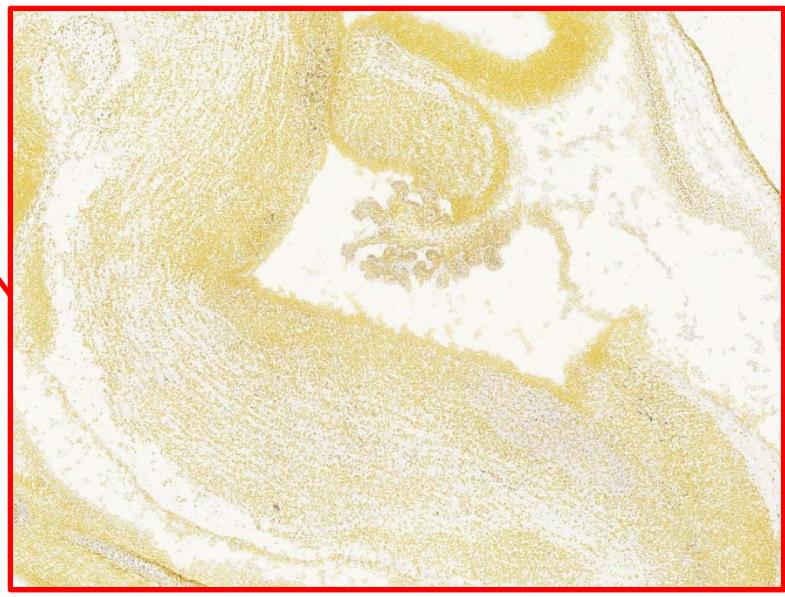
E11.5



E13.5

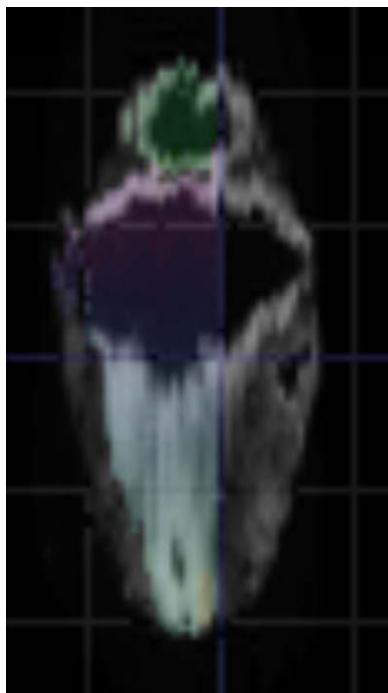


E15.5

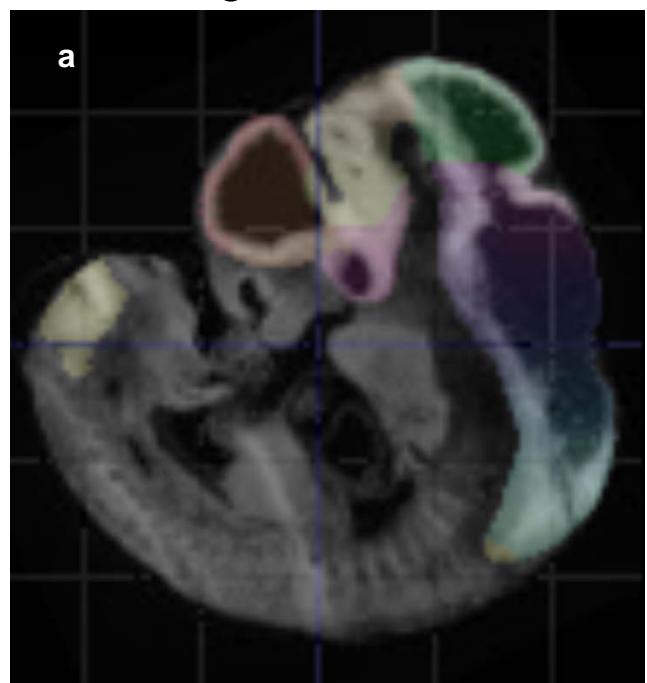


SHH-subgroup gene: *Chrna7*, Cholinergic receptor nicotinic alpha 7 (E11.5)

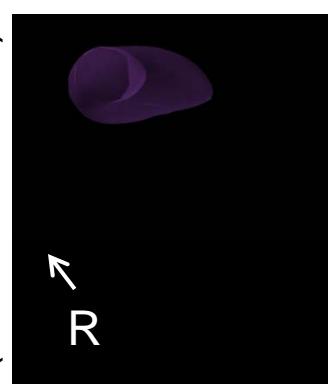
coronal section



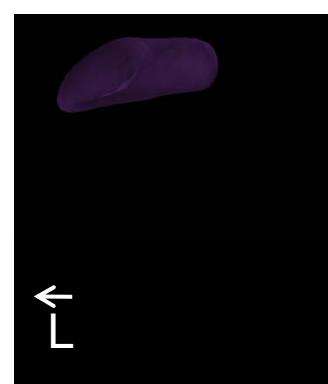
sagittal section



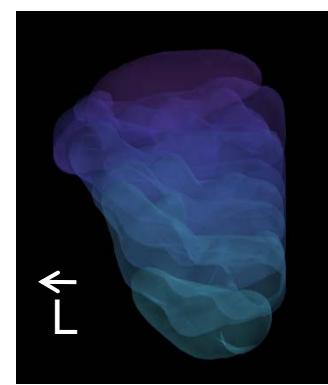
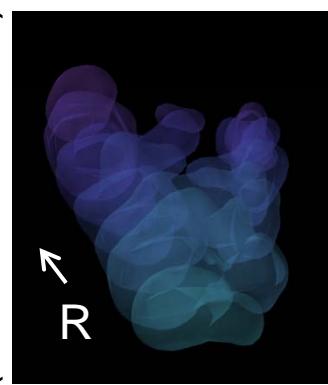
sagittal



coronal



lower rhombic lip upper rhombic lip  
(rhombomere 2-8) (rhombomere 1)

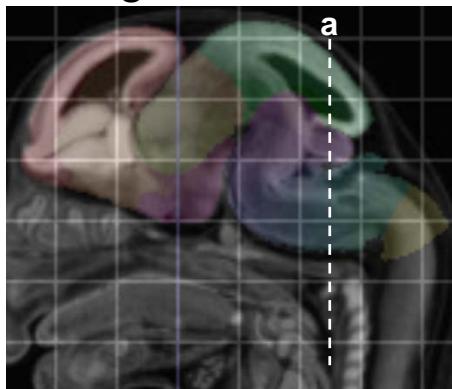


expression  
intensity

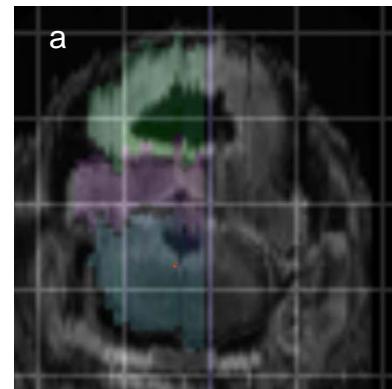


SHH-subgroup gene: *Chrna7*, Cholinergic receptor nicotinic alpha 7 (E15.5)

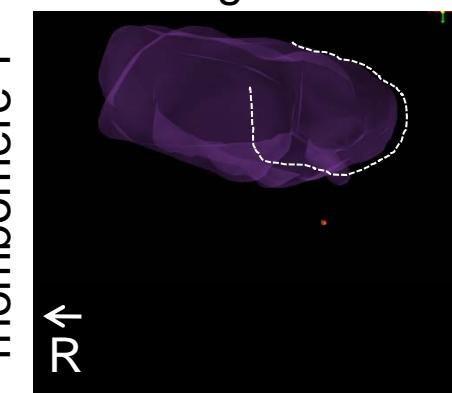
sagittal section



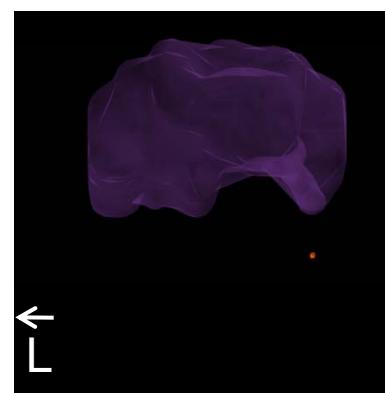
coronal section



sagittal



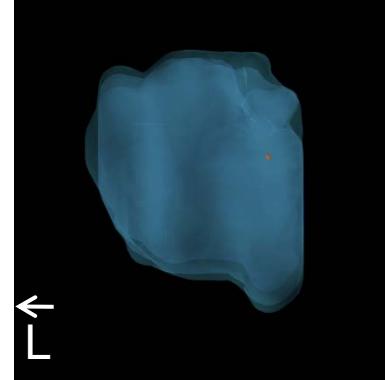
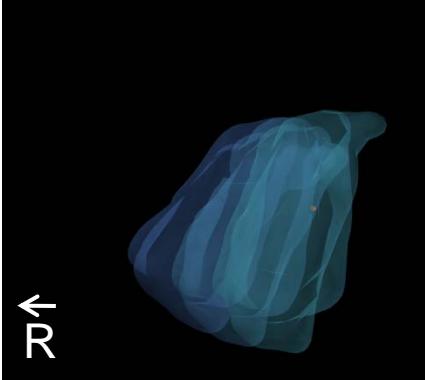
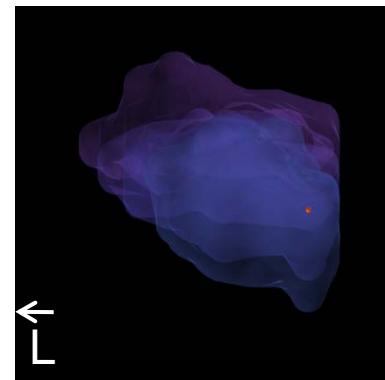
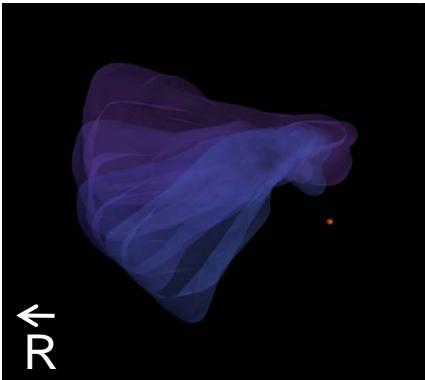
coronal



rhombomere 1

rhombomere 2-5

rhombomere 6-8

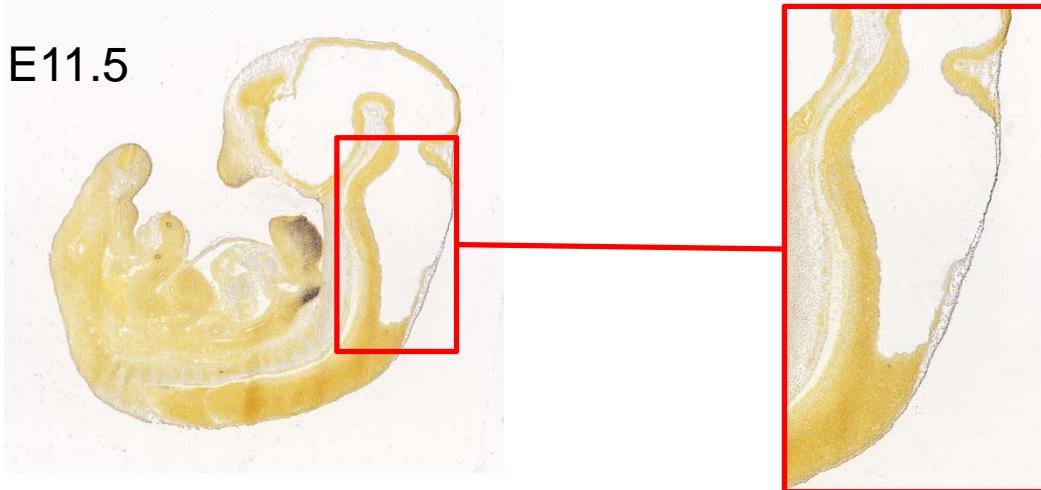


expression  
intensity

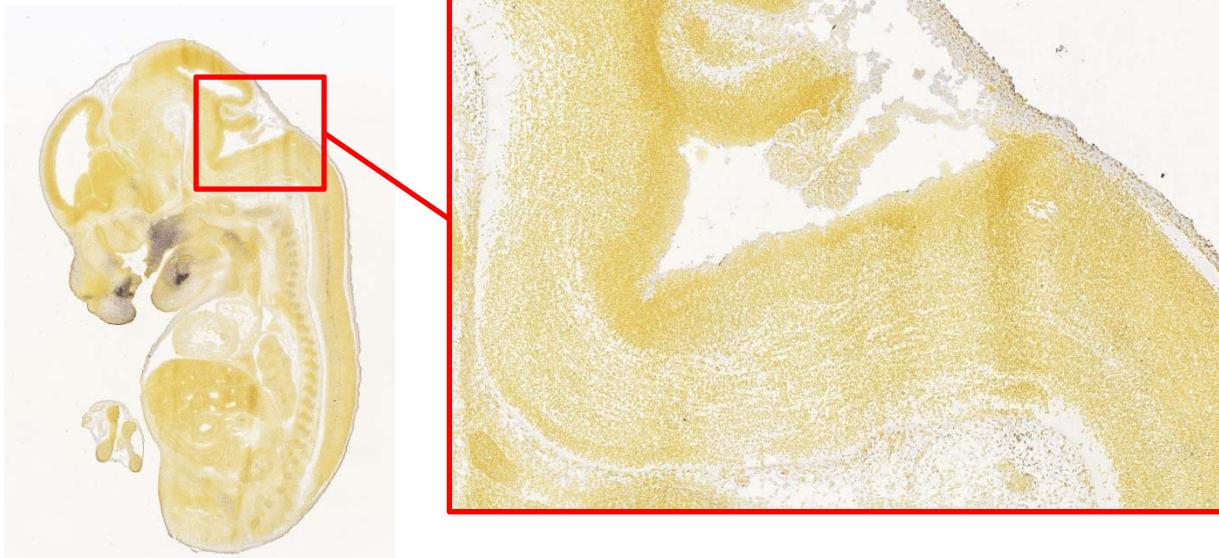


SHH-subgroup gene: *Satb2*, Special AT rich sequence binding protein 2 (*in situ*)

E11.5



E13.5

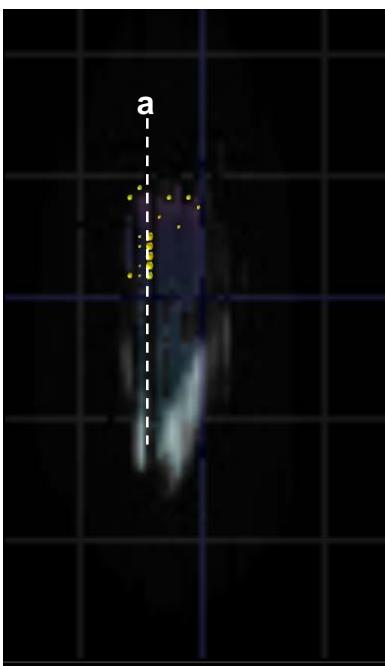


E15.5

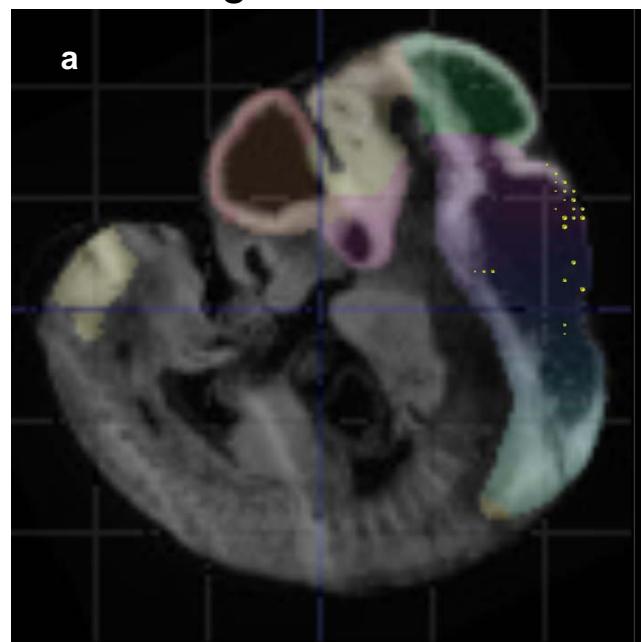


SHH-subgroup gene: *Satb2*, Special AT rich sequence binding protein 2 (E11.5)

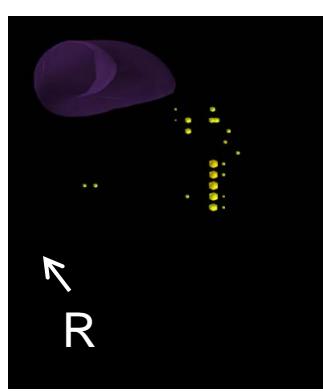
## coronal section



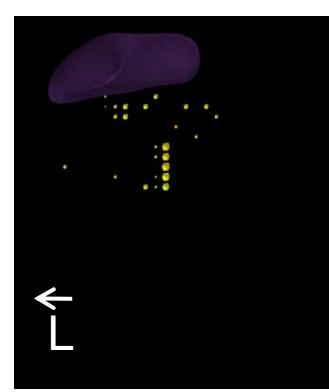
## sagittal section



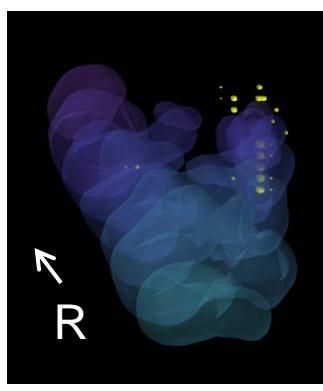
## sagittal



## coronal



lower rhombic lip upper rhombic lip  
(rhombo mere 2-8) (rhombo mere 1)



A 3D rendering of a human brain model, colored in shades of purple and blue, representing cortical thickness or another neuroimaging metric. Superimposed on the brain are numerous small yellow dots, which represent amyloid plaques. A white arrow points to a specific cluster of these plaques located in the medial temporal lobe region.

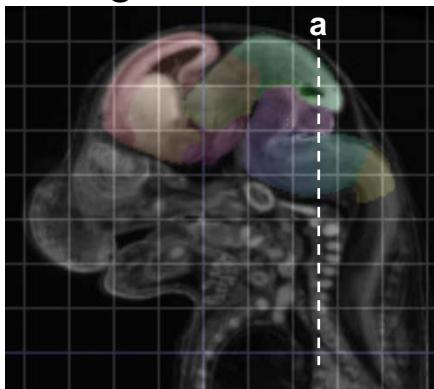
expression  
intensity

0

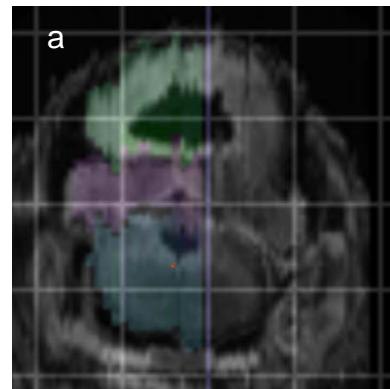
270

SHH-subgroup gene: *Satb2*, Special AT rich sequence binding protein 2 (E15.5)

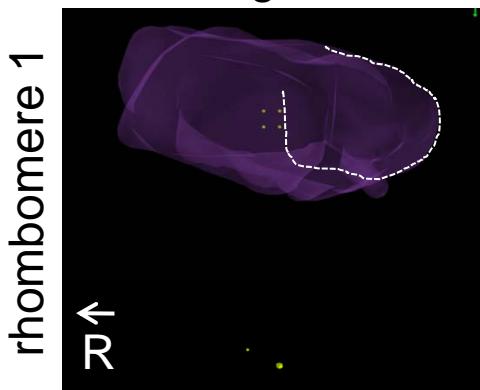
sagittal section



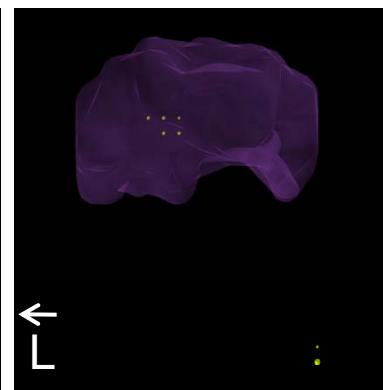
coronal section



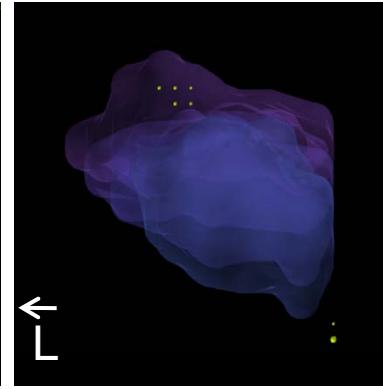
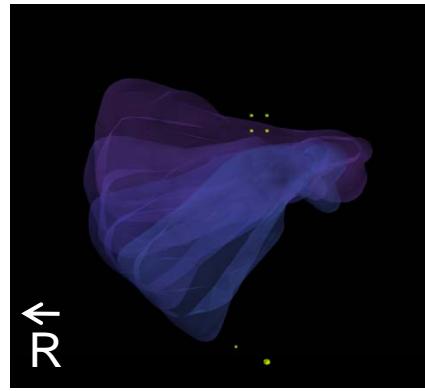
sagittal



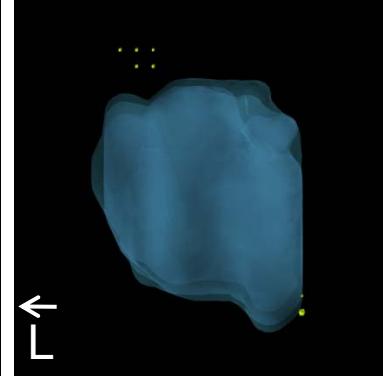
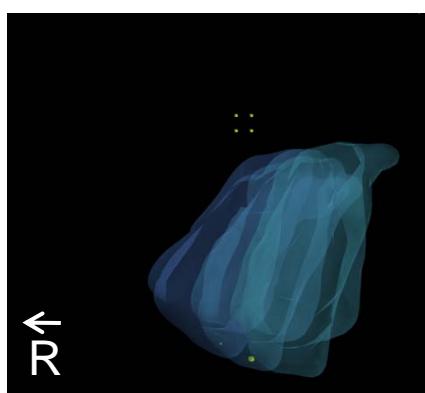
coronal



rhombomere 2-5



rhombomere 6-8



expression  
intensity

