Supplemental Dataset 1: Developmental Gene Expression Distribution 1.

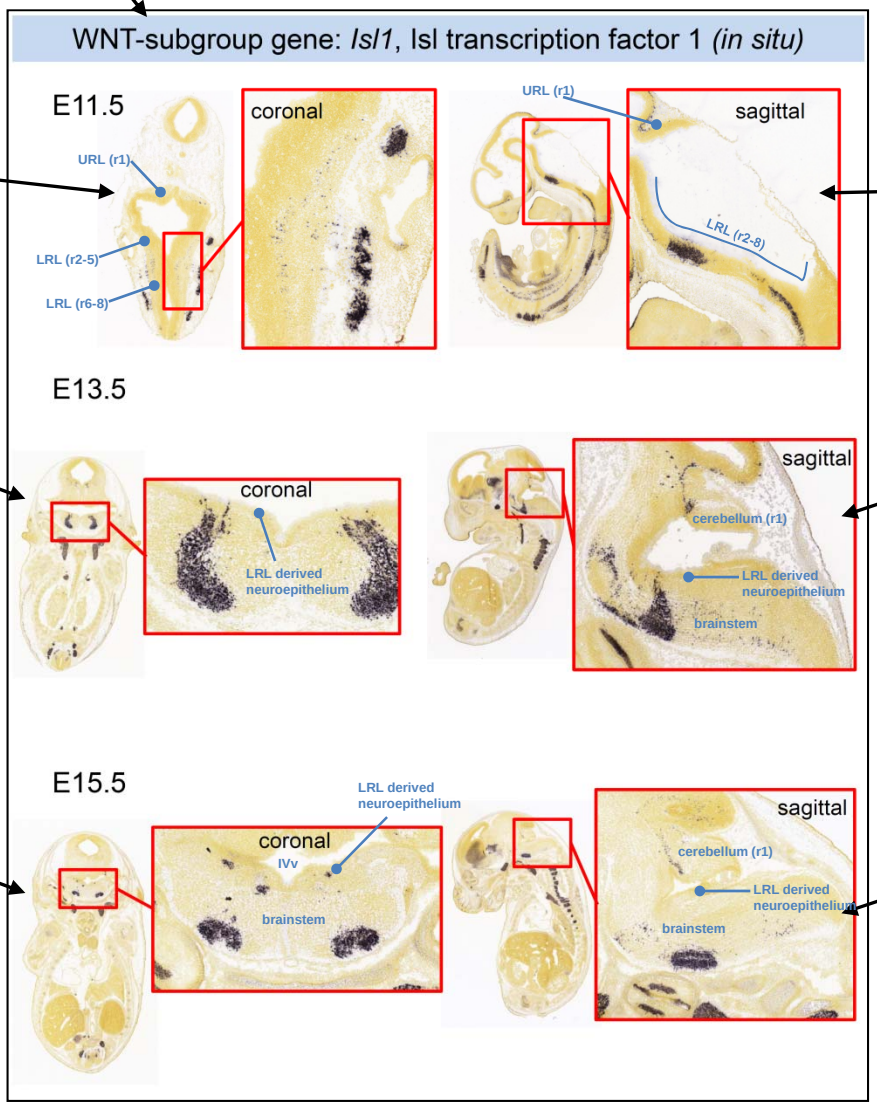
This dataset reports the expression distribution in the developing mouse hindbrain (rhombomeres 1-8) of 24 and 25 signature genes of human WNT-subgroup and SHH-subgroup medulloblastoma, respectfully. The genes in this dataset include all of the most significantly and differentially expressed signature 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). 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). 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.

Human medulloblastoma subgroup of signature gene: gene symbol, gene name.



Coronal low (left) and high (right) power views of *ish* stained E11.5 embryo.

Sagittal low (left) and high (right) power views of *ish* stained E11.5 embryo.

Coronal low (left) and high (right) power views of *ish* stained E13.5 embryo.

Sagittal low (left) and high (right) power views of *ish* stained E13.5 embryo.

Coronal low (left) and high (right) power views of *ish* stained E15.5 embryo.

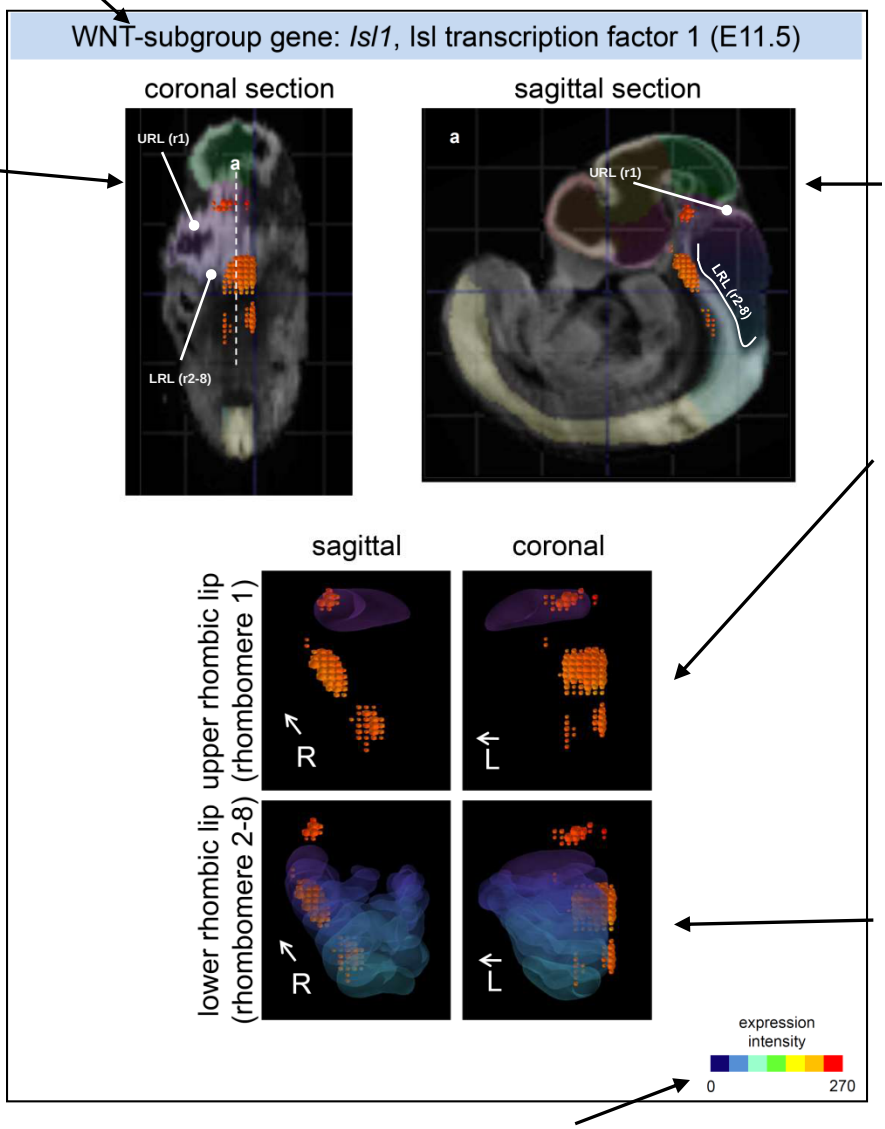
Sagittal low (left) and high (right) power views of *ish* stained E15.5 embryo.

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 .

Human medulloblastoma subgroup of signature gene: gene symbol, gene name.



Coronal view of a Brain Explorer 2 generated *ish* section at E11.5. **NB.** this image is selected to show the greatest region of gene expression and therefore represents a single plane. Hence the plane of section varies from gene to gene. The dotted line 'a' marks the plane of the sagittal section shown to the right.

Sagittal view of a Brain Explorer 2 generated *ish* section at E11.5 in plane 'a' shown left.

3-D reconstructed view of *ish* gene expression across the entire thickness of the E11.5 embryo in sagittal (left) and coronal (right) planes. **NB. The purple body top outlines the position of the upper rhombic lip (URL) rhombomere 1.**

3-D reconstructed view of *ish* gene expression across the entire thickness of the E11.5 embryo in sagittal (left) and coronal (right) planes. **NB. The blue bodies outline the positions of the lower rhombic lip (LRL) rhombomeres 2-8.**

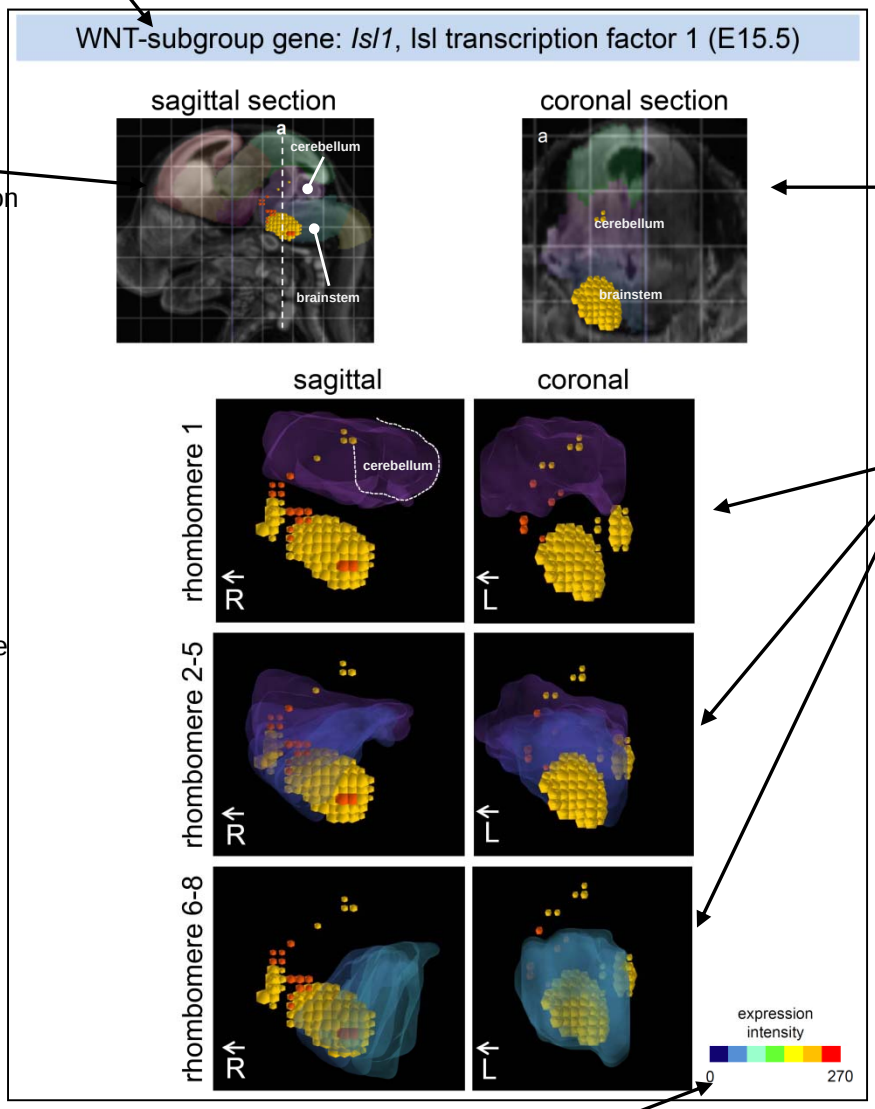
Ish gene expression intensity in arbitary units.

Abbreviations: as previous page and rostral (R), lateral (L).

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 .

Human medulloblastoma subgroup of signature gene: gene symbol, gene name.



Sagittal view of a Brain Explorer 2 generated *ish* section at E15.5. **NB.** this image is selected to show the greatest region of gene expression and therefore represents a single plane. Hence the plane of section varies from gene to gene. The dotted line 'a' marks the plane of the sagittal section shown to the right. **NB. Two planes are shown for some genes.**

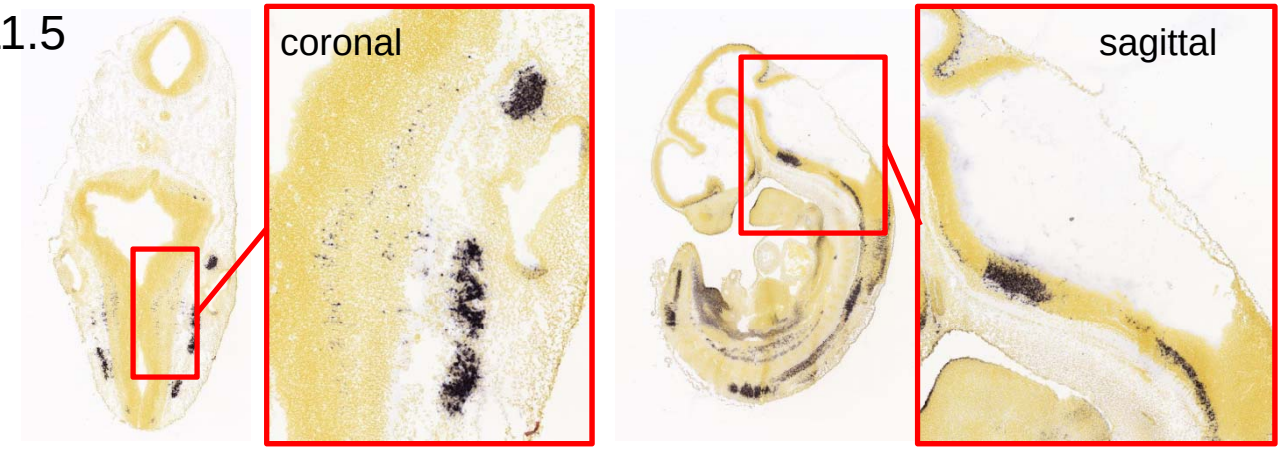
Coronal view of a Brain Explorer 2 generated *ish* section at E15.5 in plane 'a' shown left.

3-D reconstructed views of *ish* gene expression across the entire thickness of the E15.5 embryonic hindbrain in sagittal (left) and coronal (right) planes. **NB. The purple/blue bodies outline the position of rhombomere 1 (top), rhombomeres 2-5 (middle) and rhombomere 6-8 (bottom). The location of the cerebellum is shown by dotted line in the upper left panel.**

ish gene expression intensity in arbitrary units.

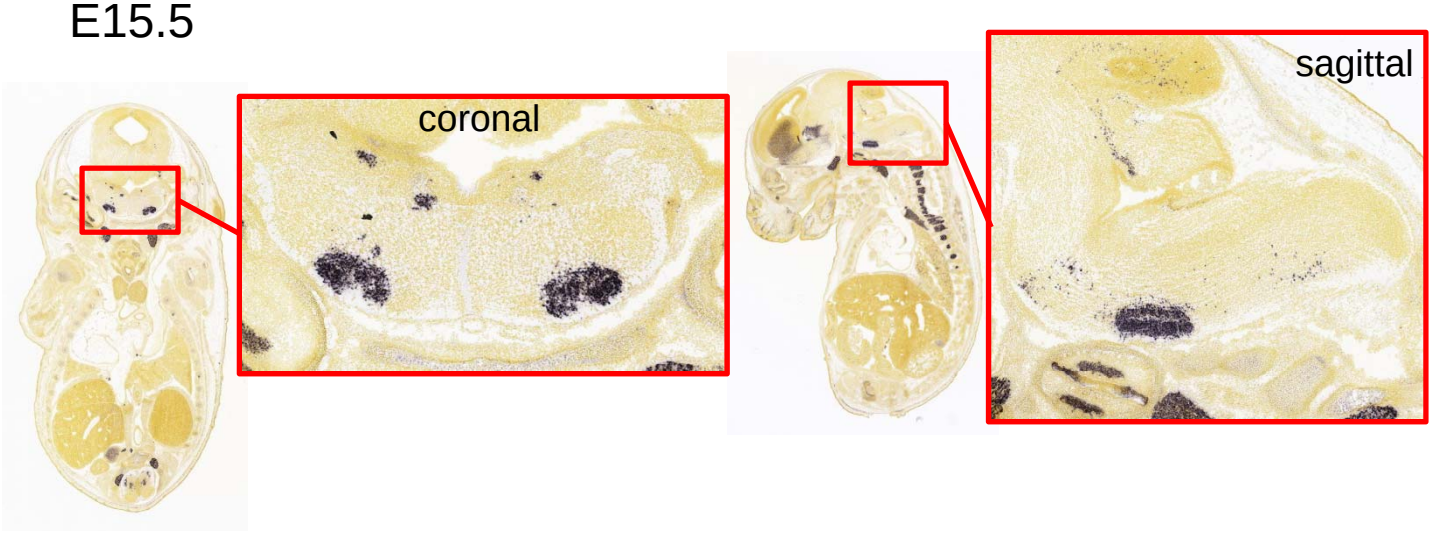
WNT-subgroup gene: *Isl1*, Isl transcription factor 1 *(in situ)*

E11.5



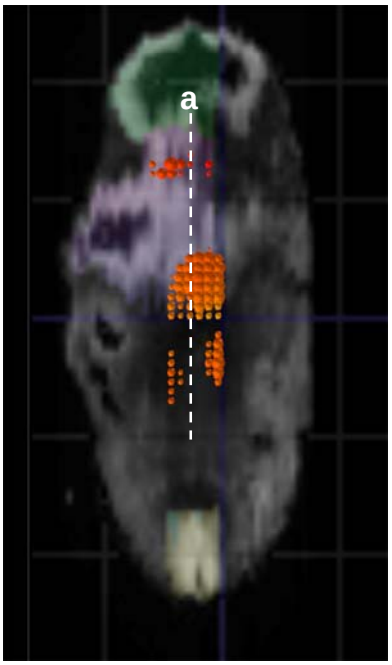
E13.5

E15.5

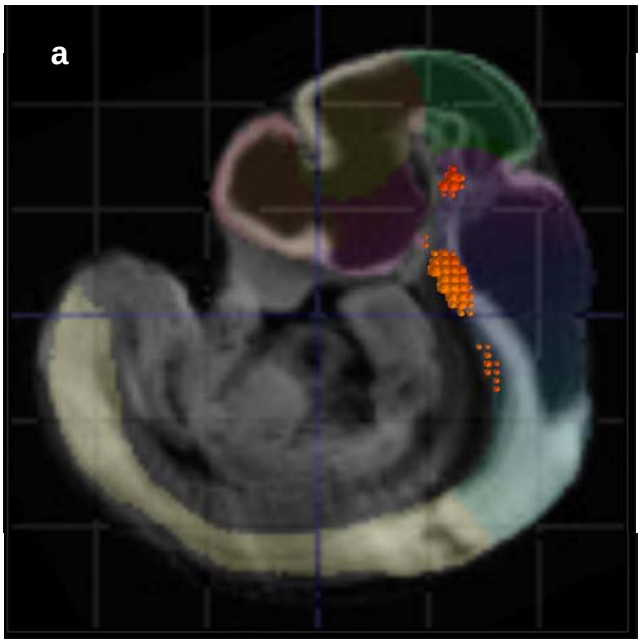


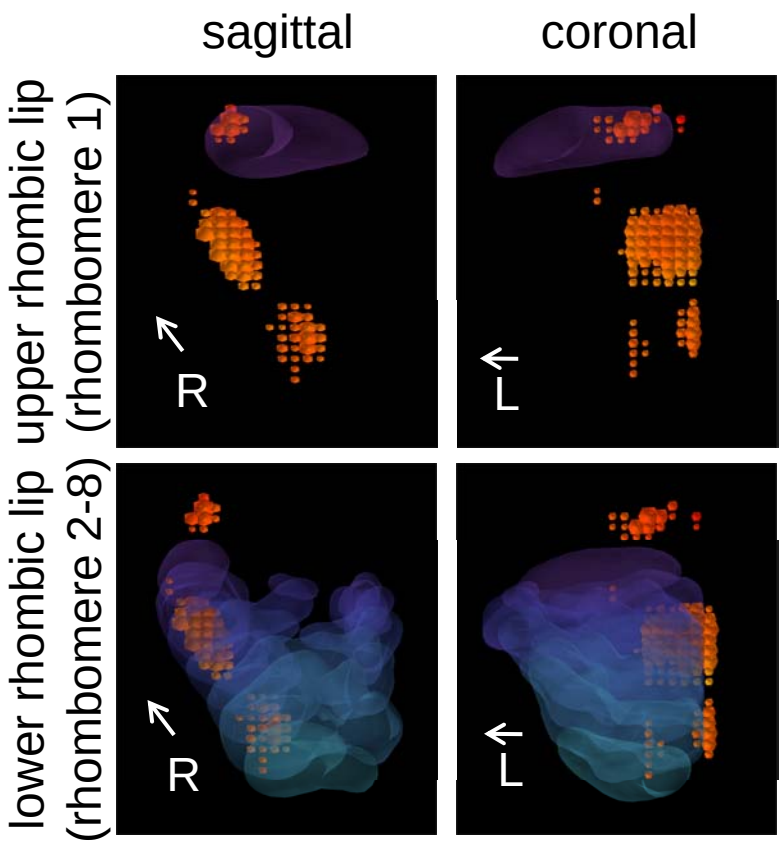
WNT-subgroup gene: *Isl1*, Isl transcription factor 1 (E11.5)

coronal section



sagittal section

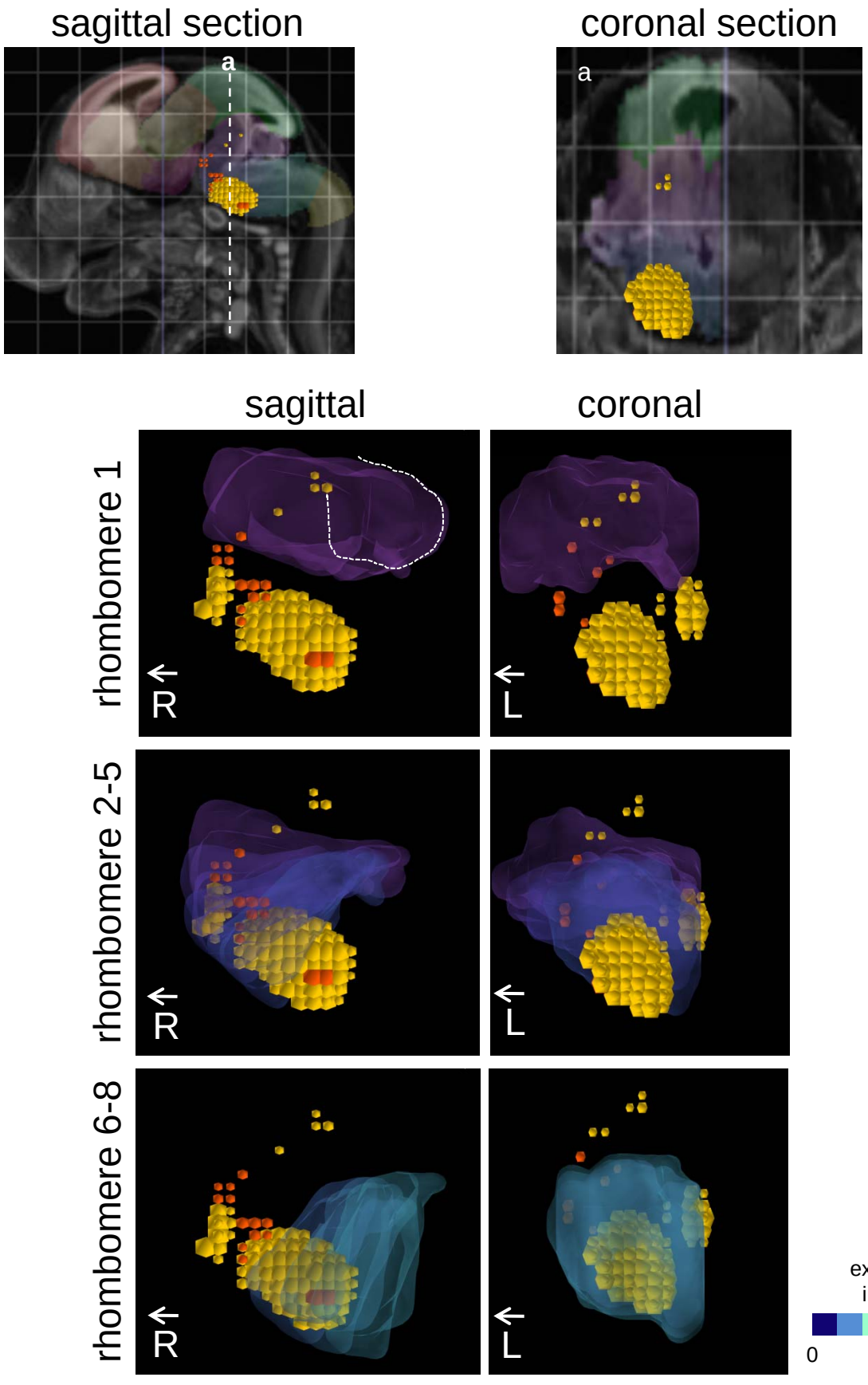




expression intensity

0 270

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

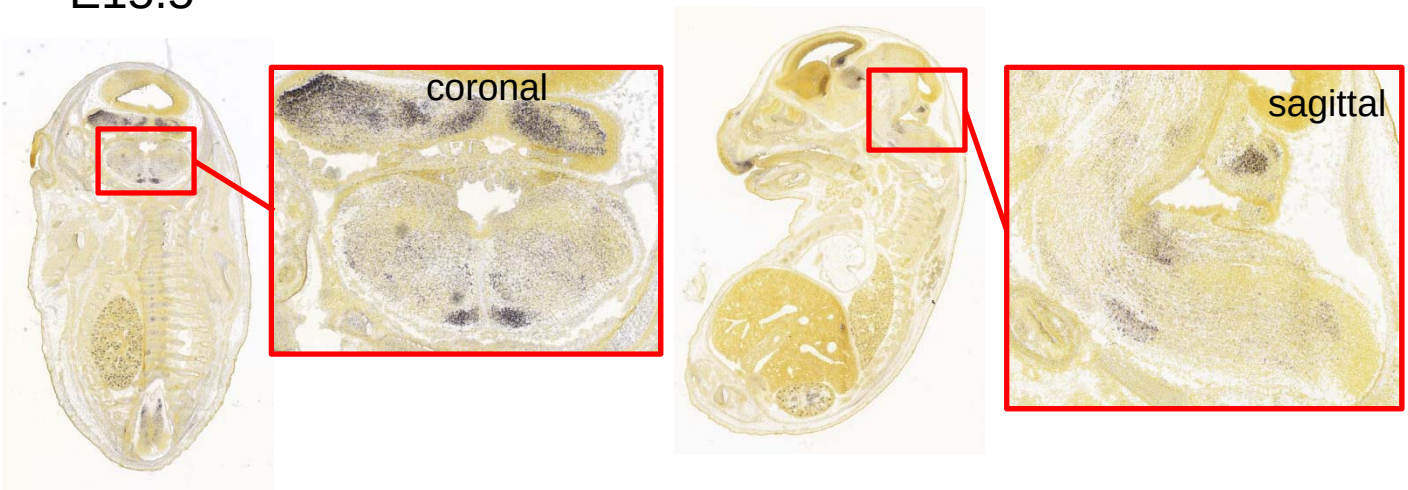


WNT-subgroup gene: *Epha4*, Ephrin receptor A 4 (*in situ*)

E11.5

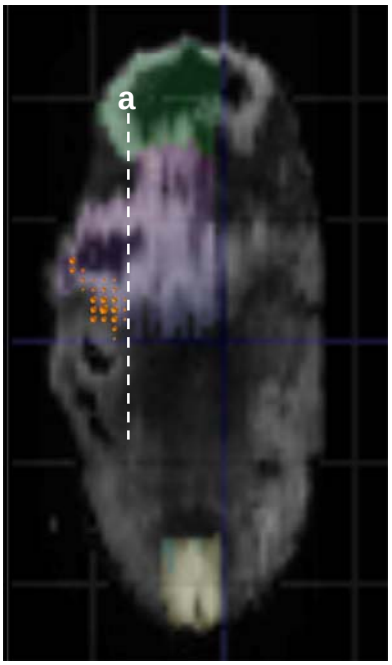
E13.5

E15.5

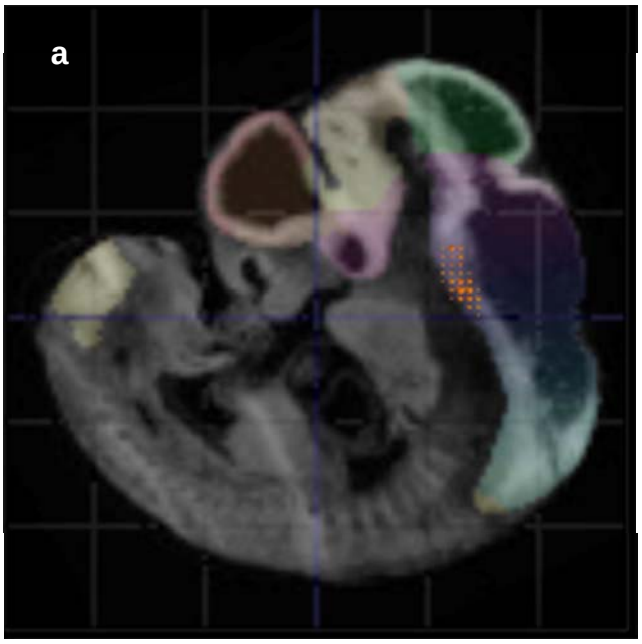


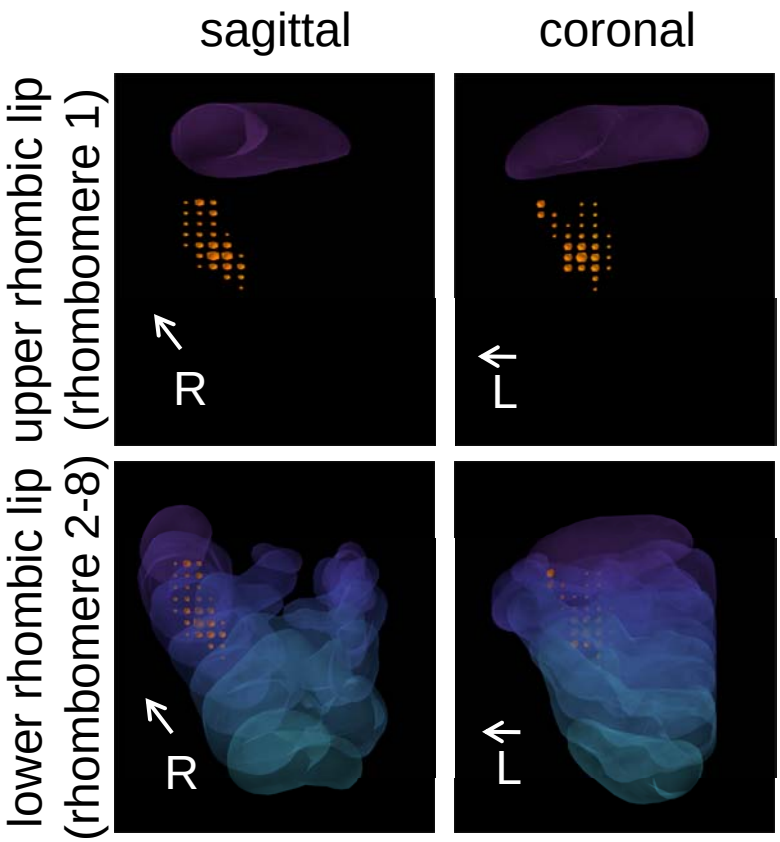
WNT-subgroup gene: *Epha4*, Ephrin receptor A 4 (E11.5)

coronal section



sagittal section

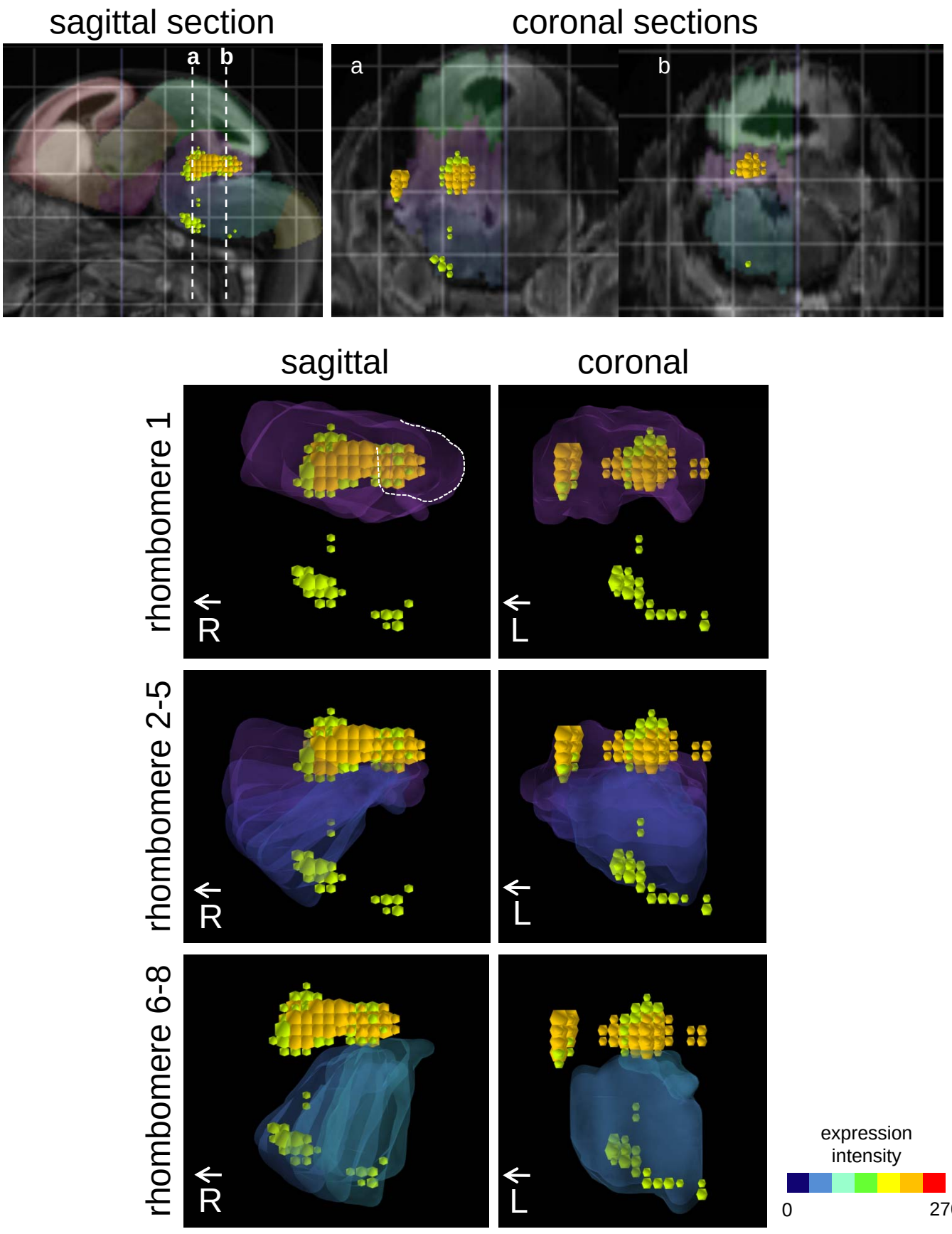




expression intensity

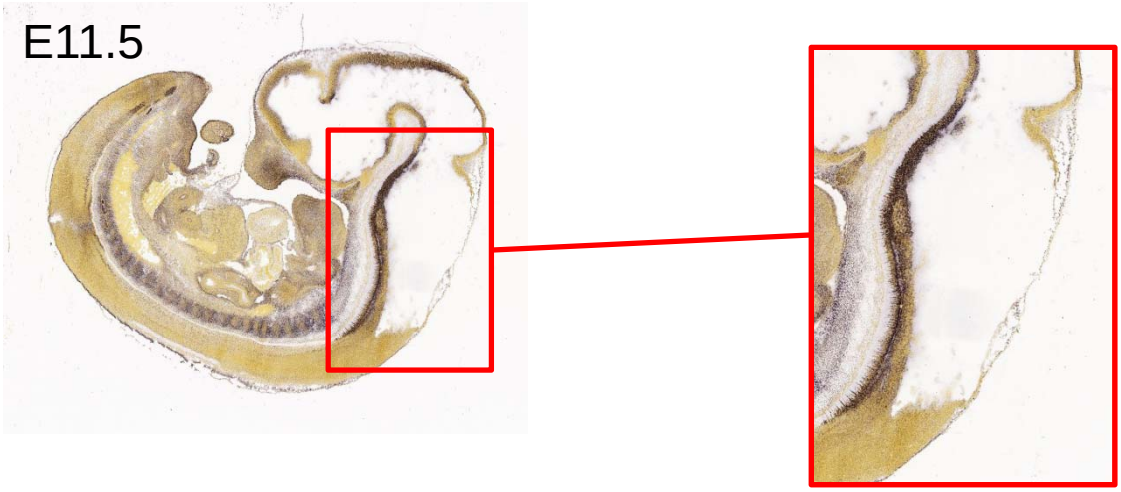
0 270

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

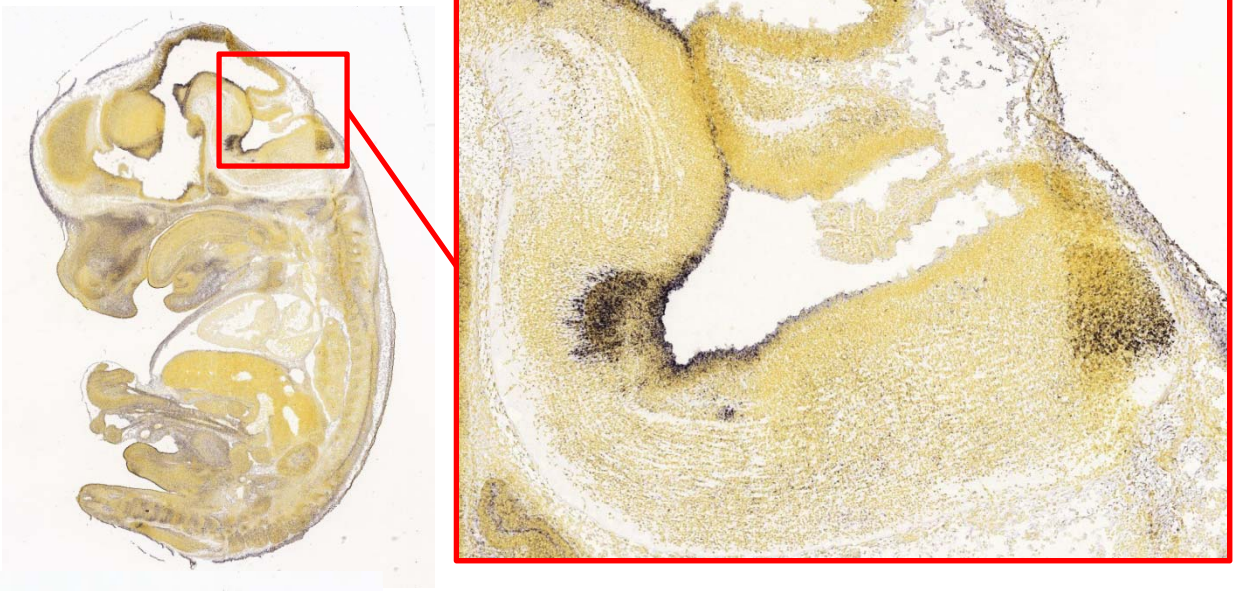


WNT-subgroup gene: *Odz3*, Odd Oz/ten-m 3 *(in situ)*

E11.5



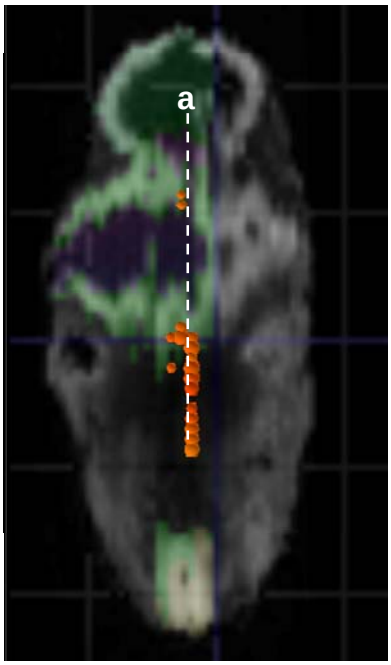
E13.5



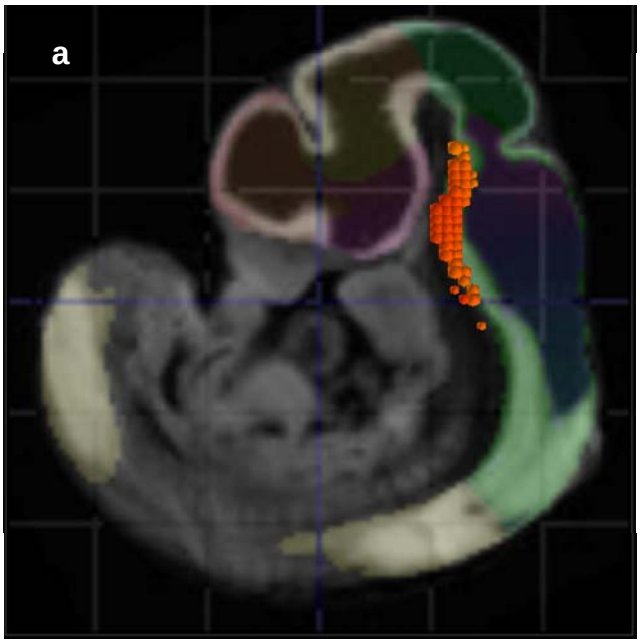
E15.5

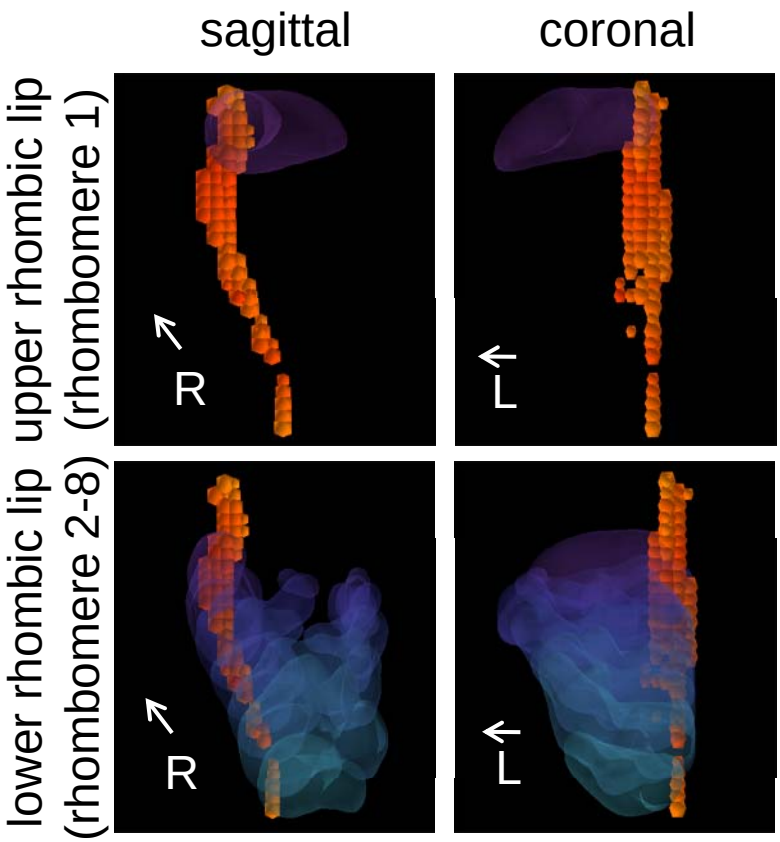
WNT-subgroup gene: *Odz3*, Odd Oz/ten-m 3 (E11.5)

coronal section



sagittal section

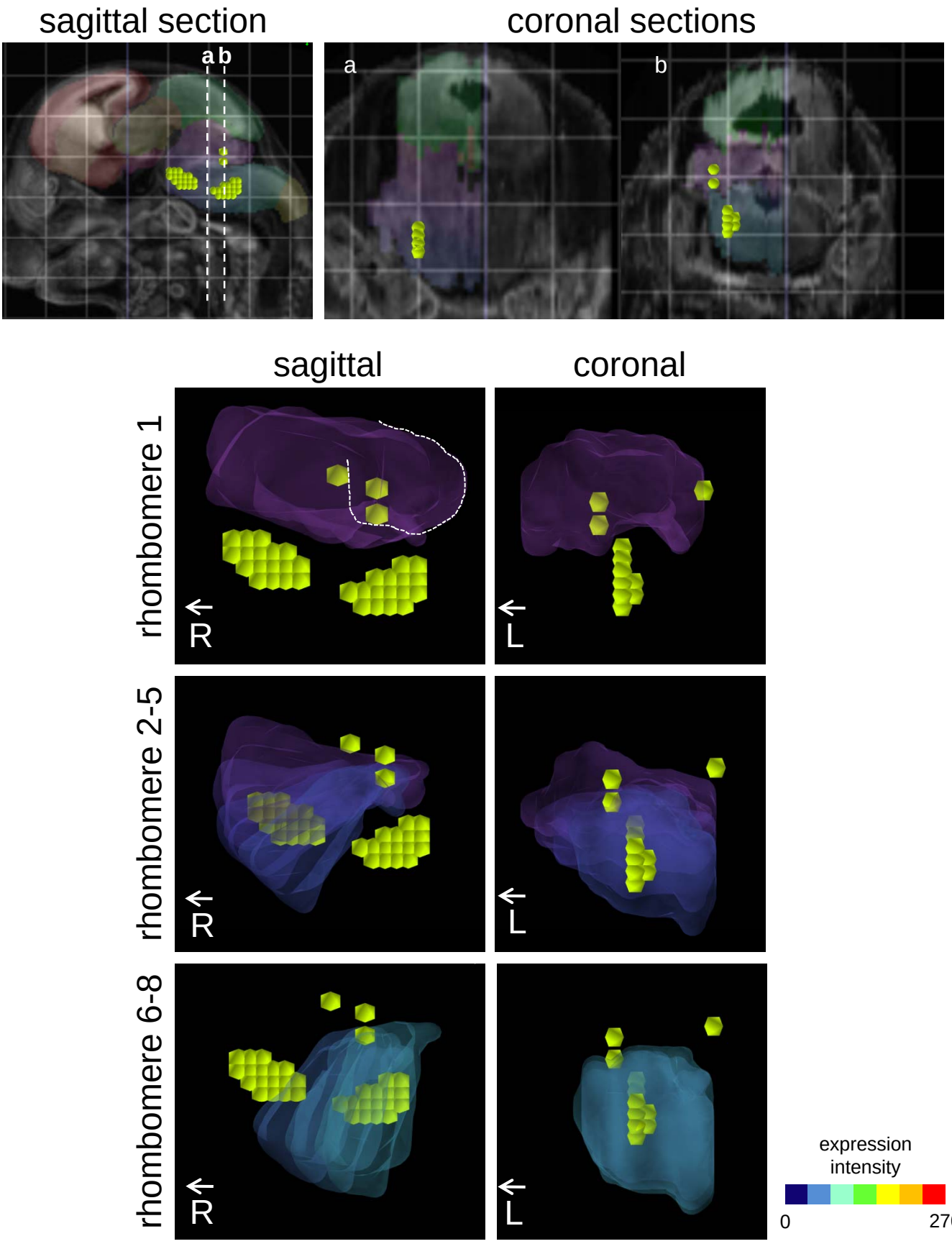




expression intensity

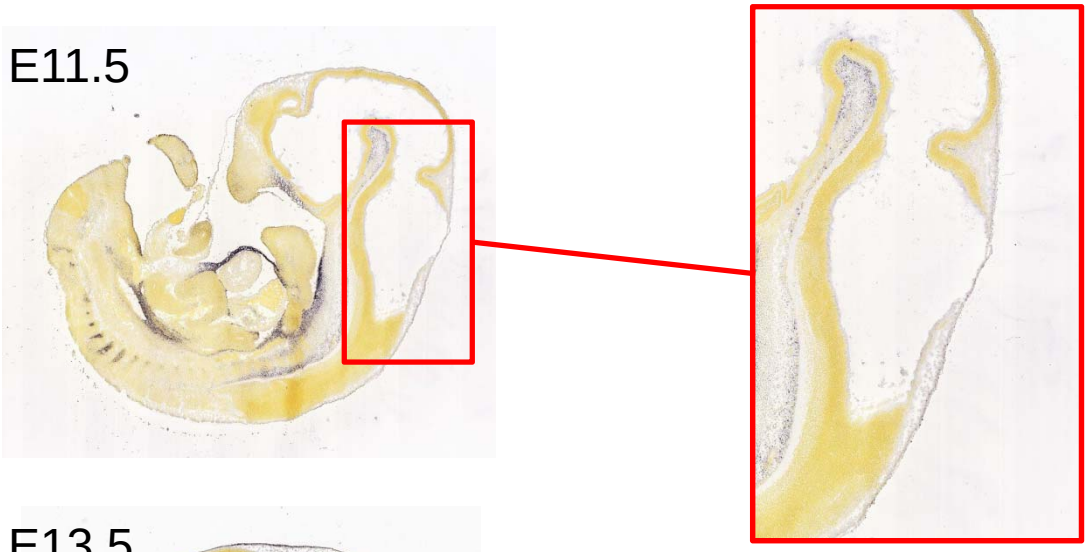
0 270

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



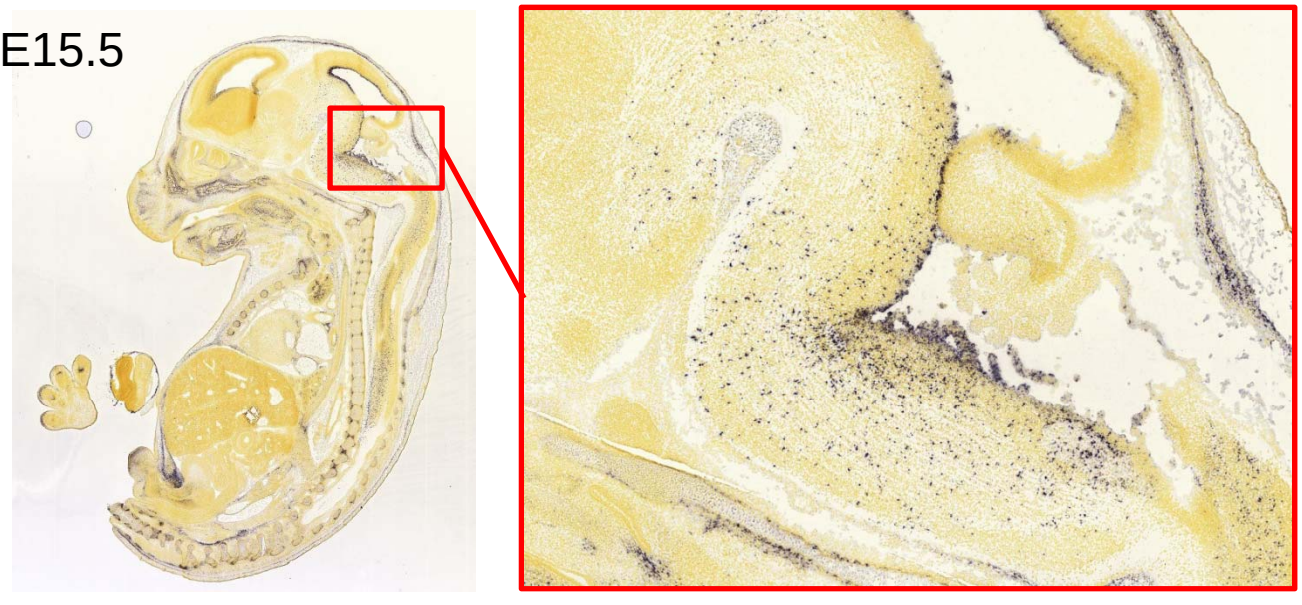
WNT-subgroup gene: *Tnc*, Tenascin C (*in situ*)

E11.5



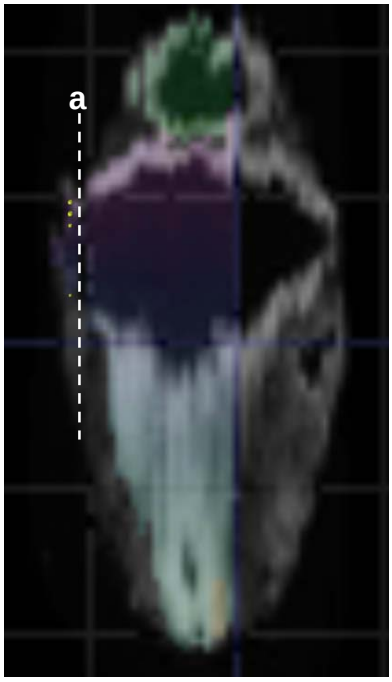
E13.5

E15.5

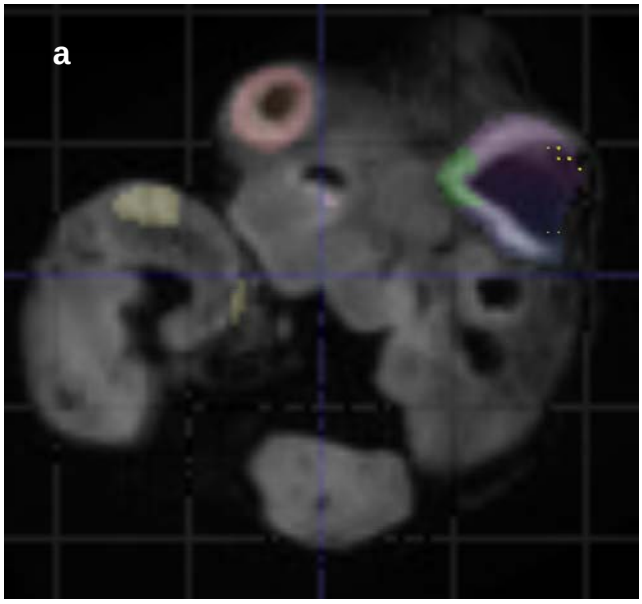


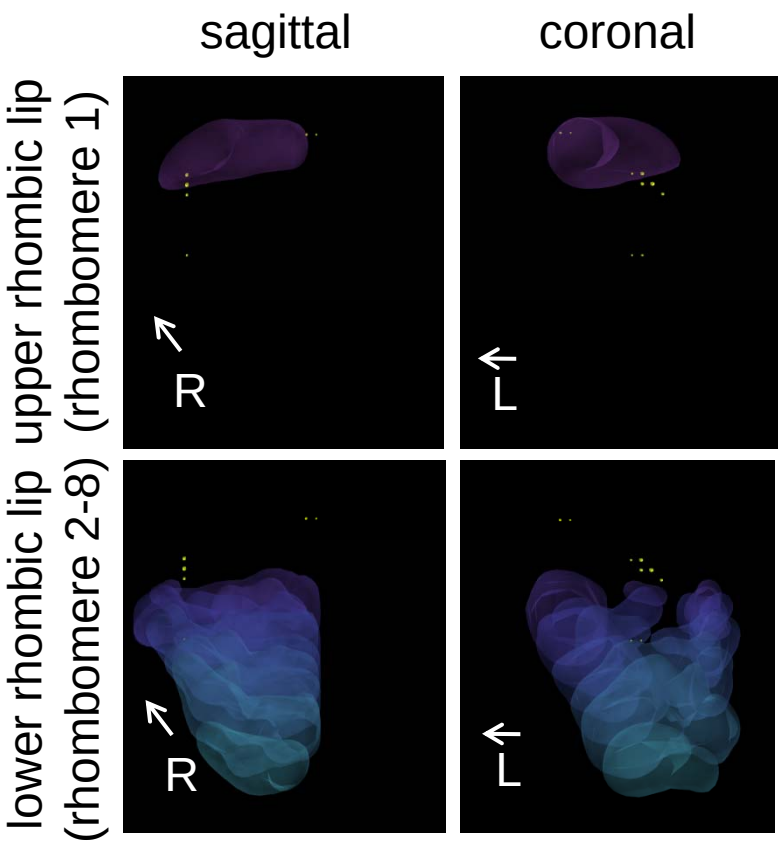
WNT-subgroup gene: *Tnc*, Tenascin C (E11.5)

coronal section



sagittal section

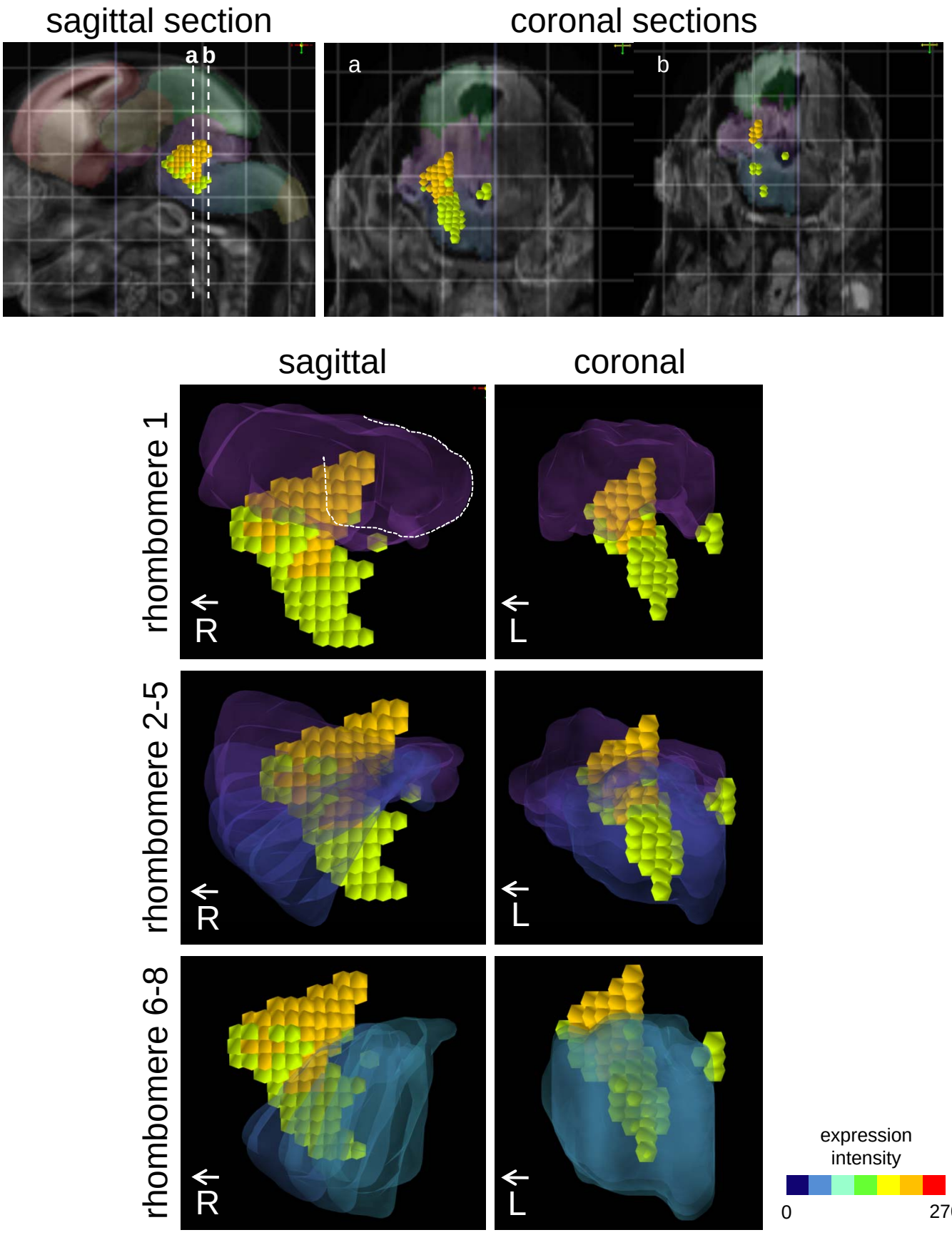




expression intensity

0 270

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

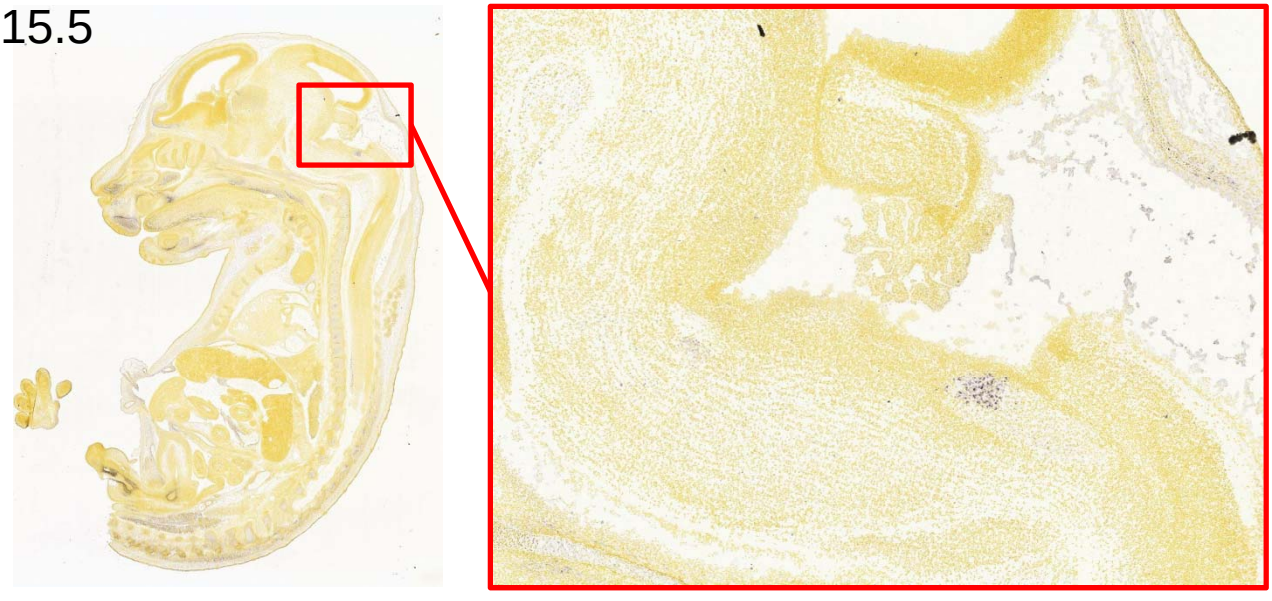


WNT-subgroup gene: *Epha3*, Eph receptor A3 (*in situ*)

E11.5

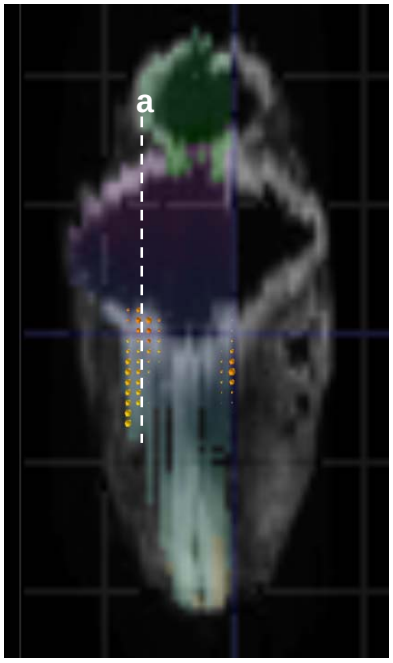
E13.5

E15.5

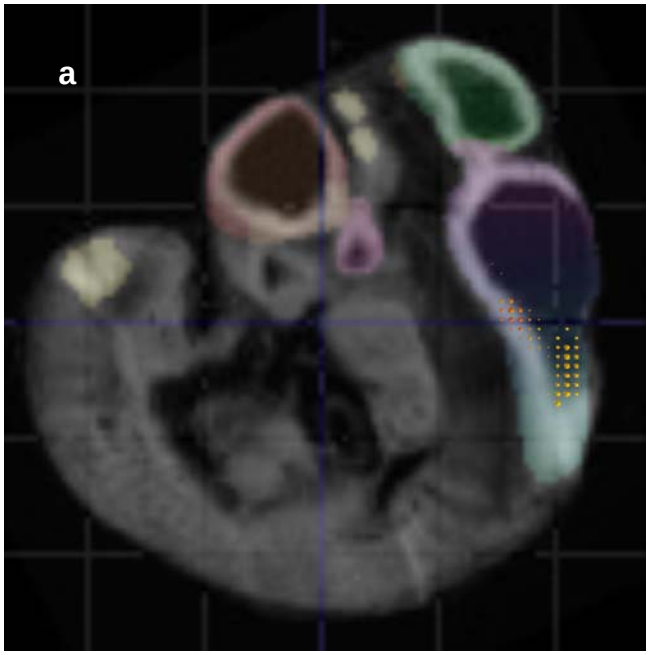


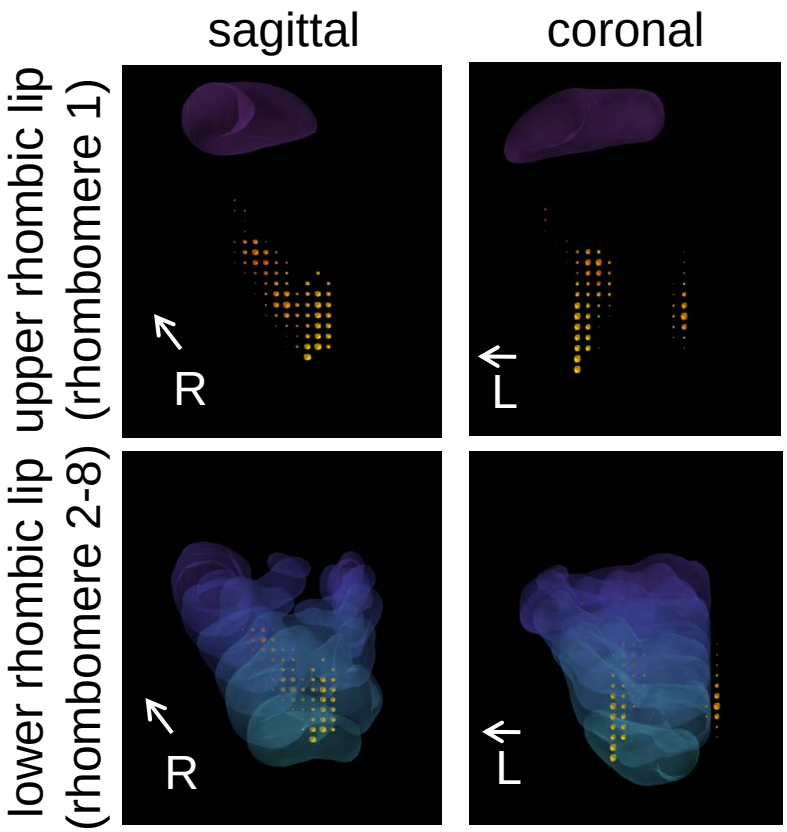
WNT-subgroup gene: *Epha3*, Eph receptor A3 (E11.5)

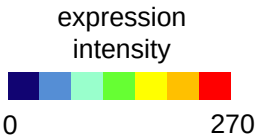
coronal section



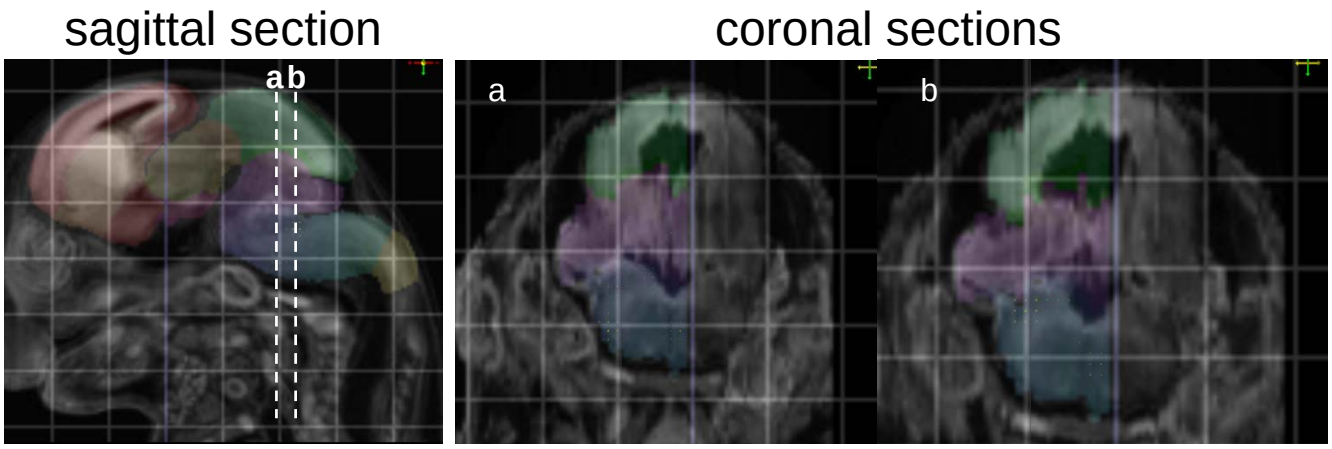
sagittal section

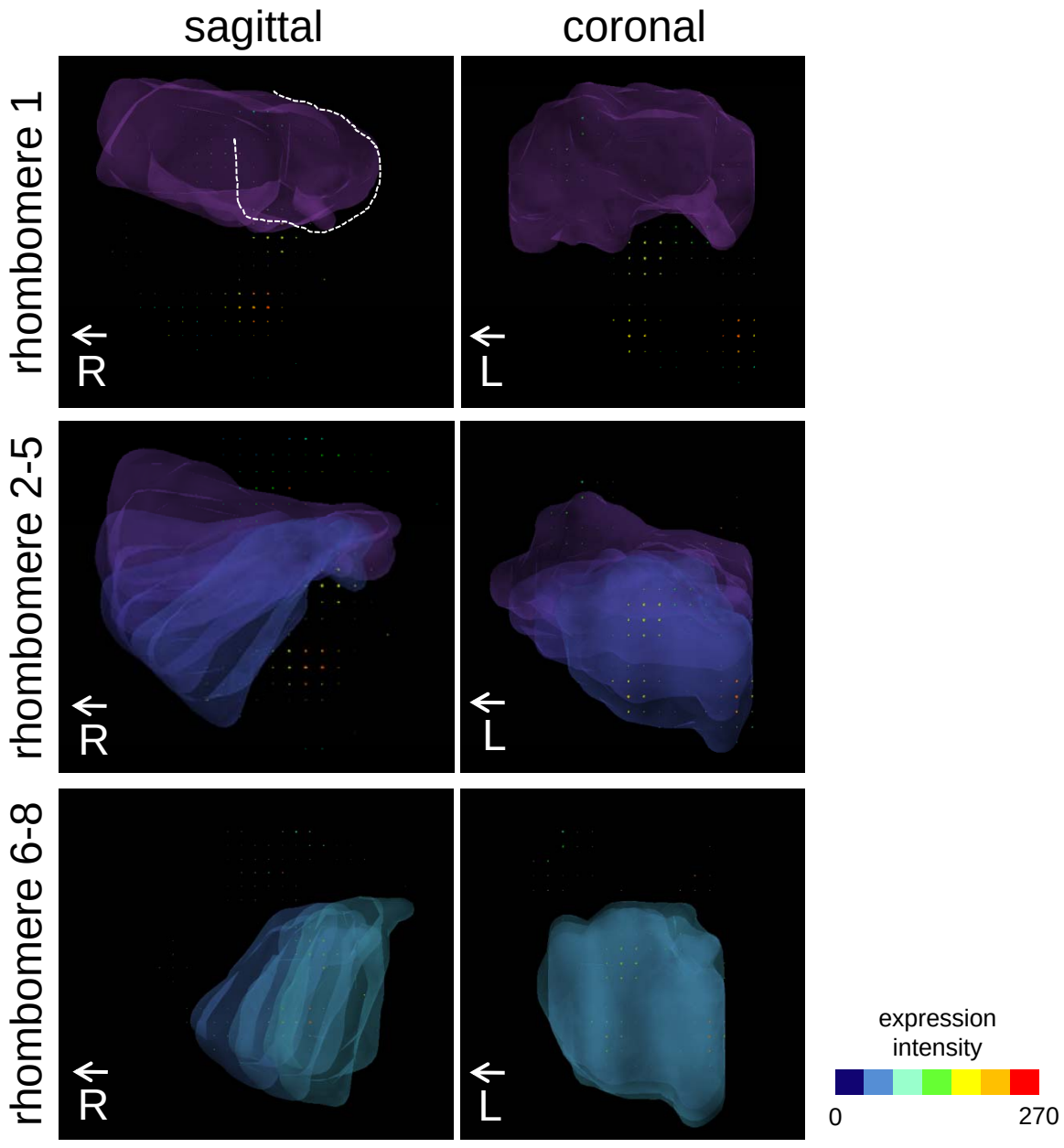






WNT-subgroup gene: *Epha3*, Eph receptor A3 (E15.5)

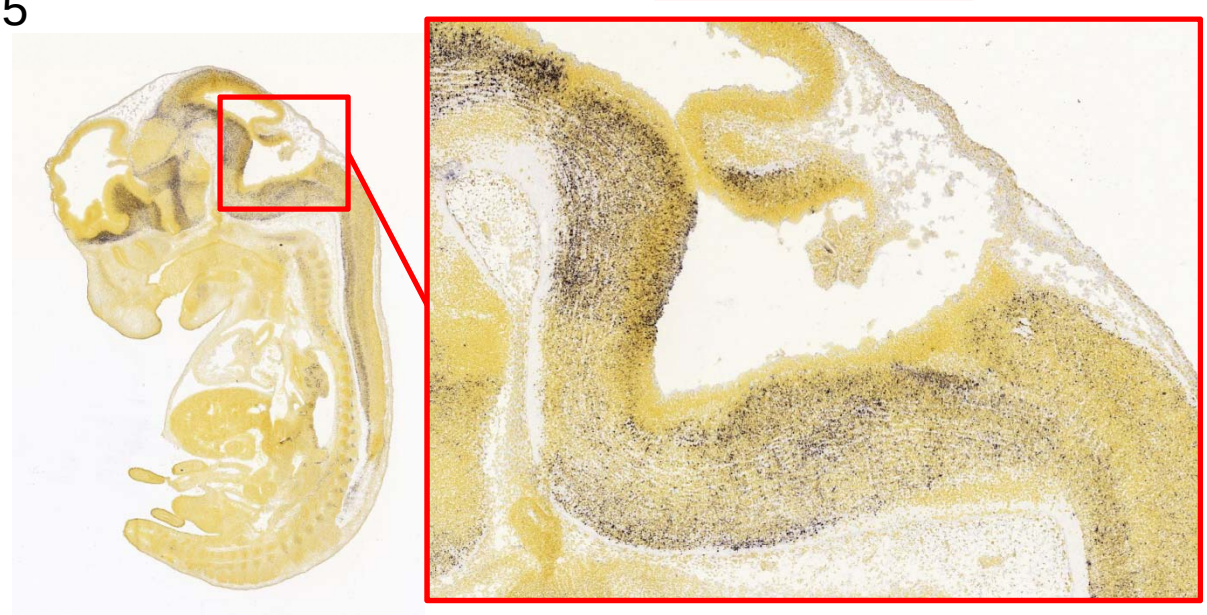




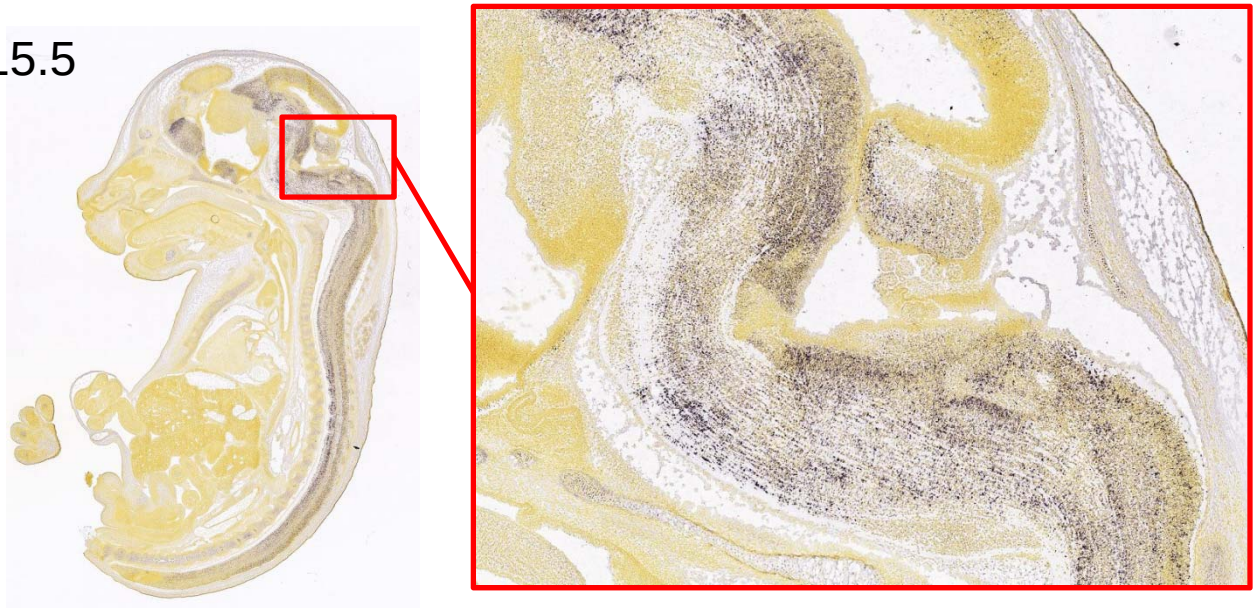
WNT-subgroup gene: *Gad1*, glutamic acid decarboxylase (*in situ*)

E11.5

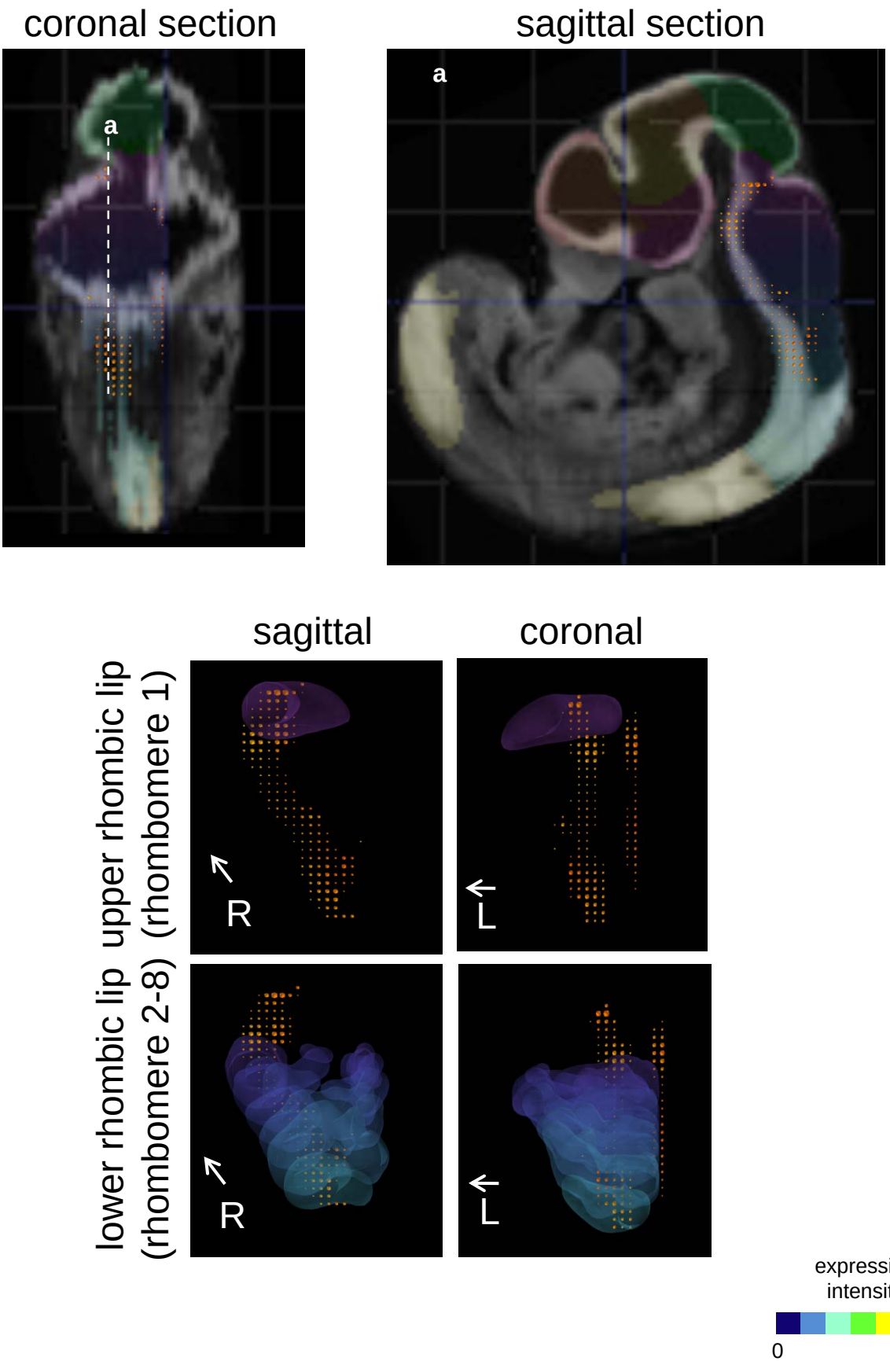
E13.5



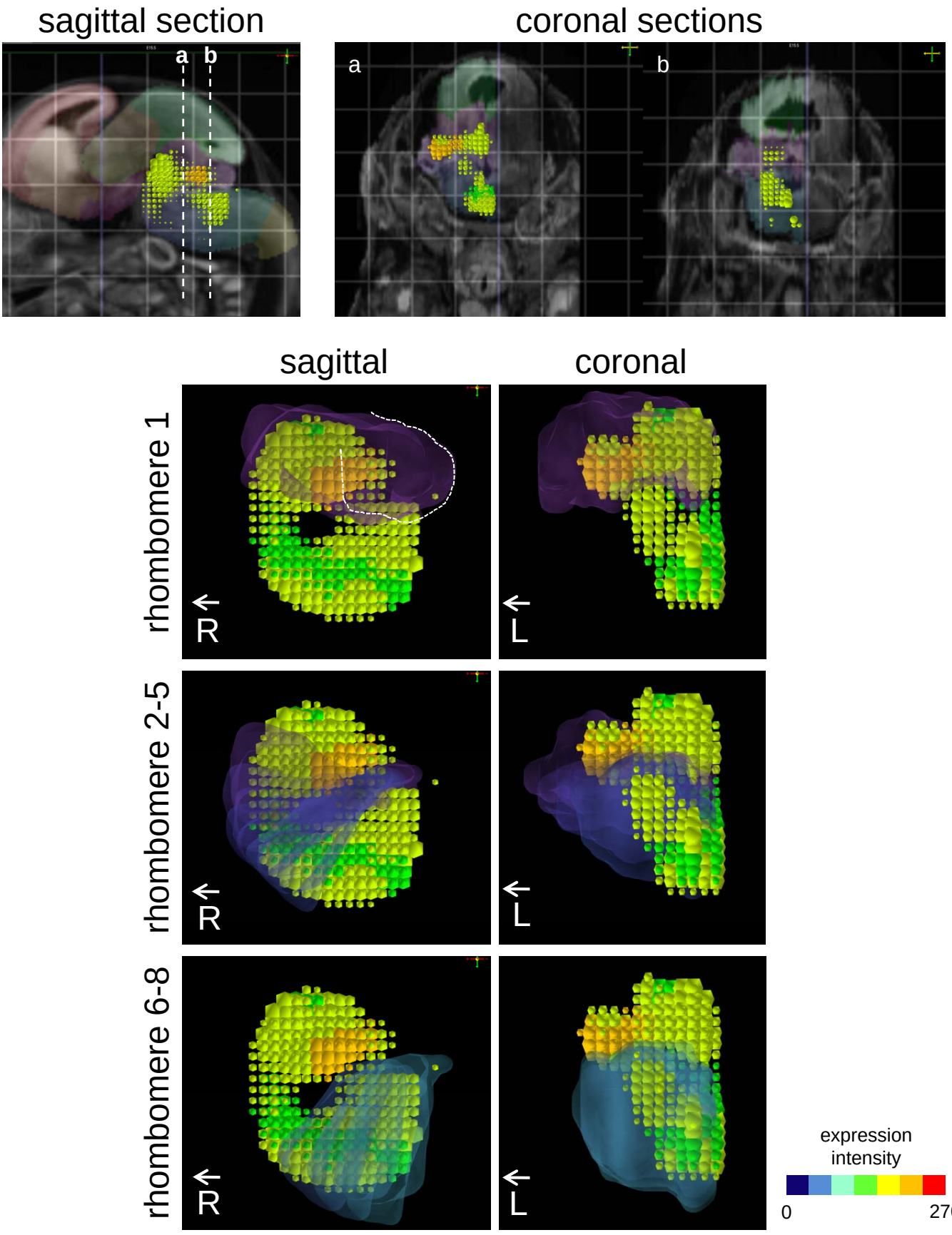
E15.5



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

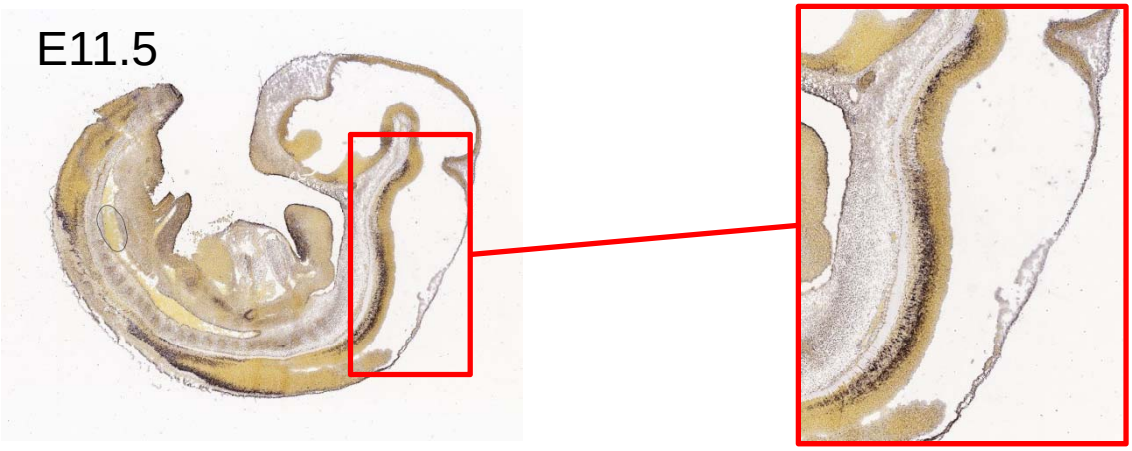


WNT-subgroup gene: *Gad1*, glutamic acid decarboxylase (E15.5)

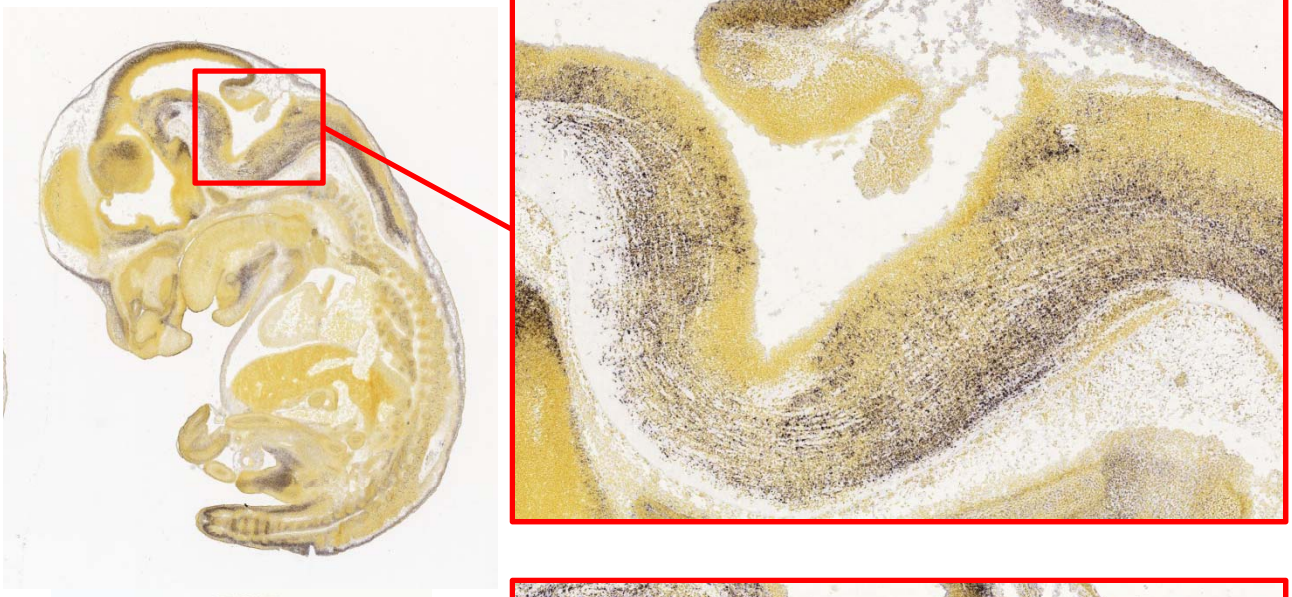


WNT-subgroup gene: *Atbf1*, AT motif binding factor 1 (*in situ*)

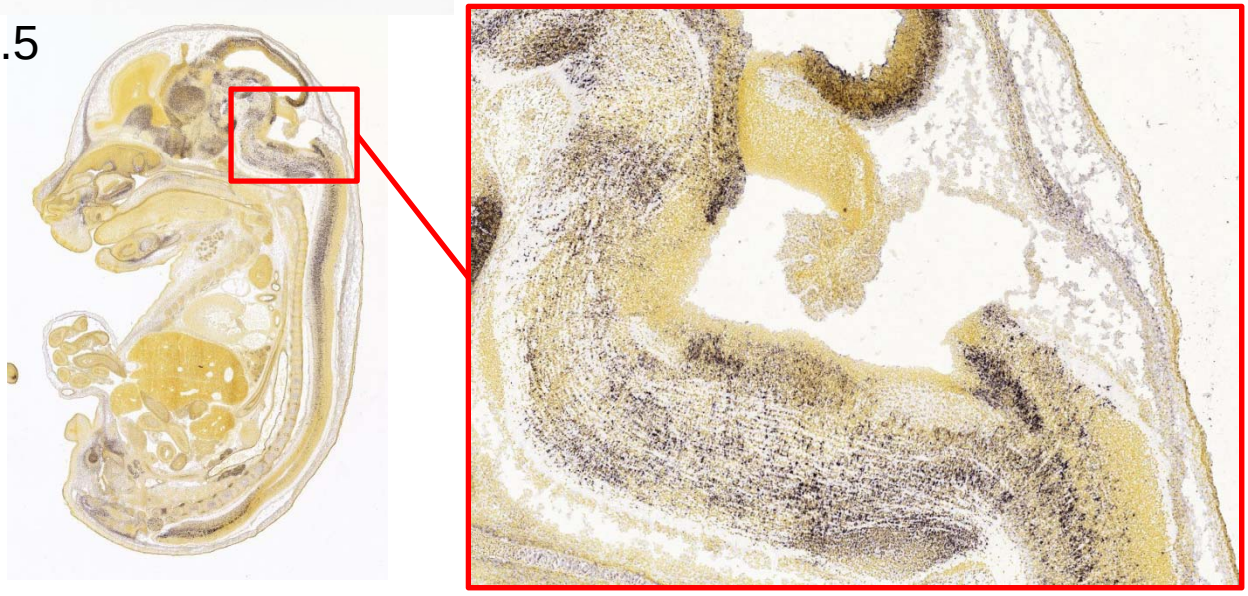
E11.5



E13.5



E15.5



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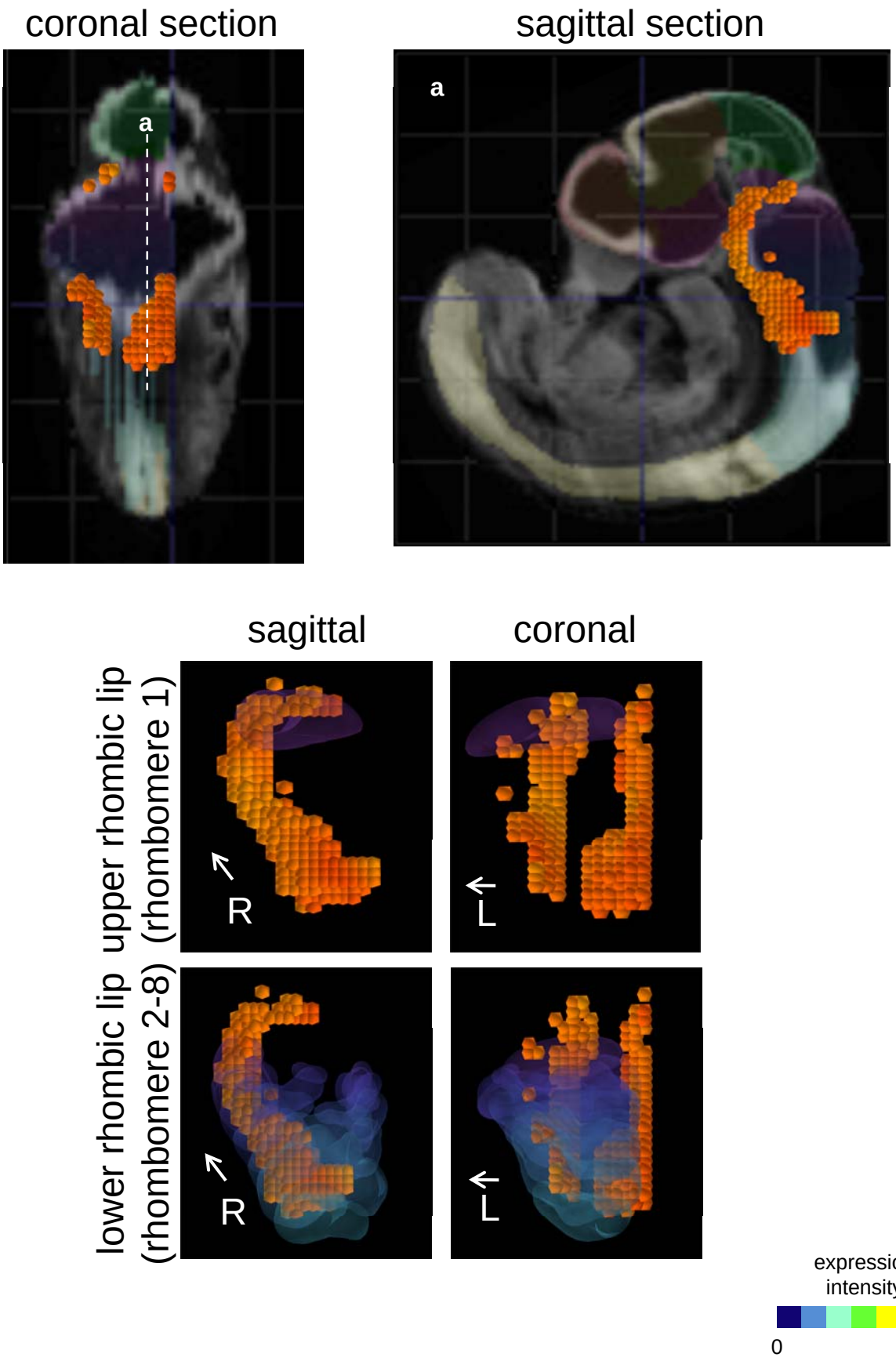
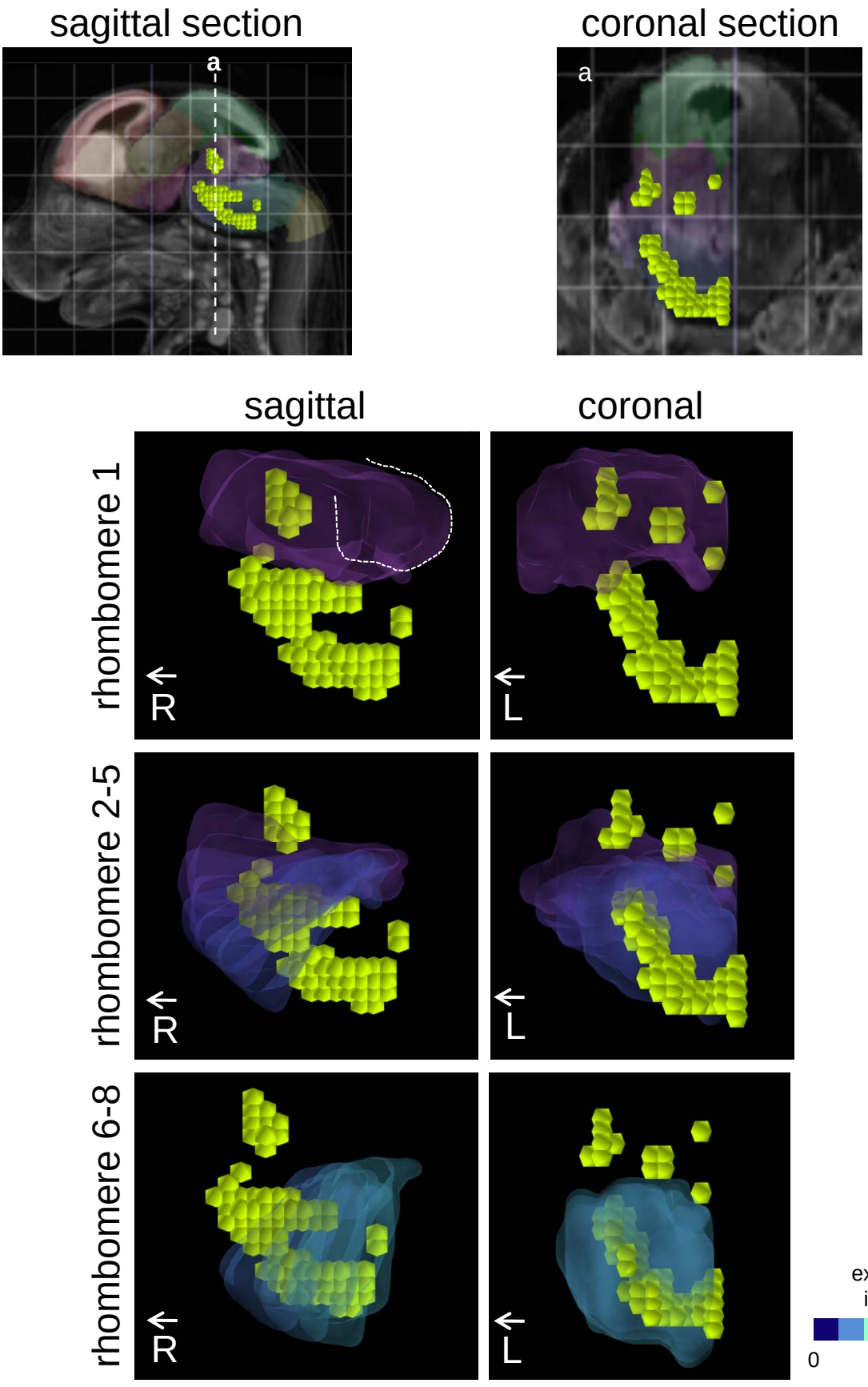
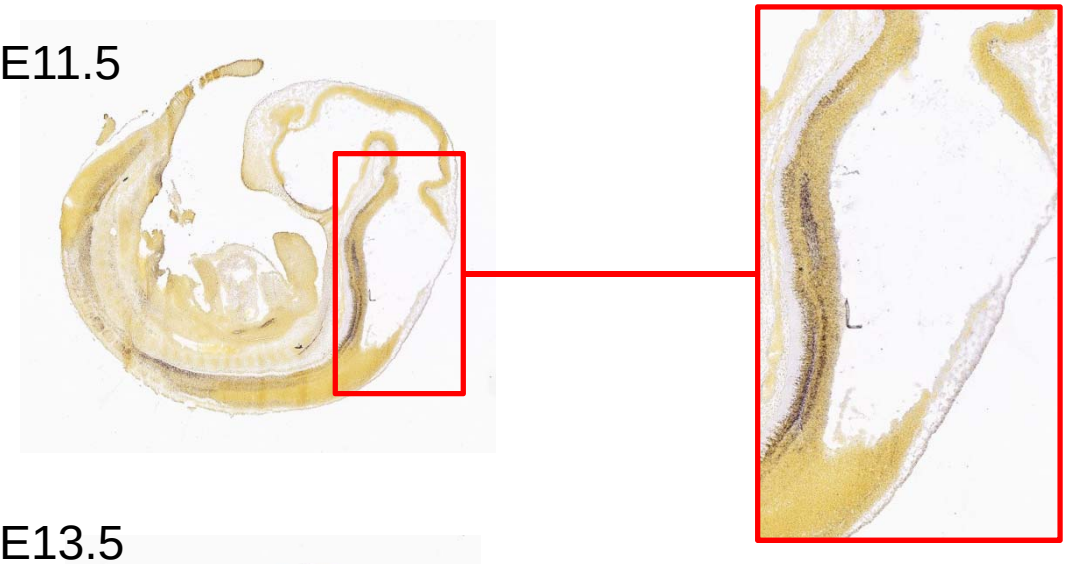


WNT-subgroup gene: *Atbf1*, AT motif binding factor 1 (E15.5)



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

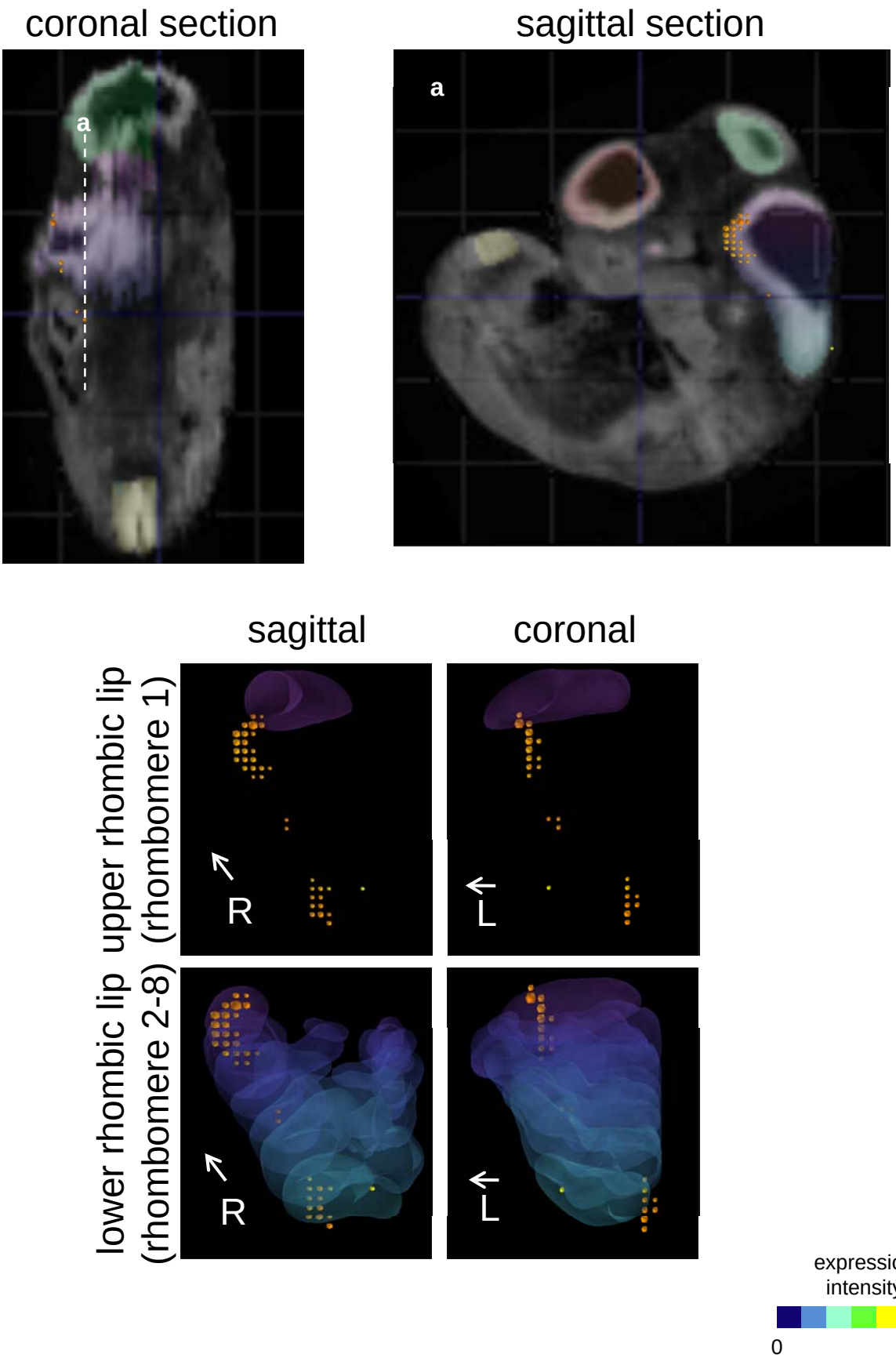
E11.5



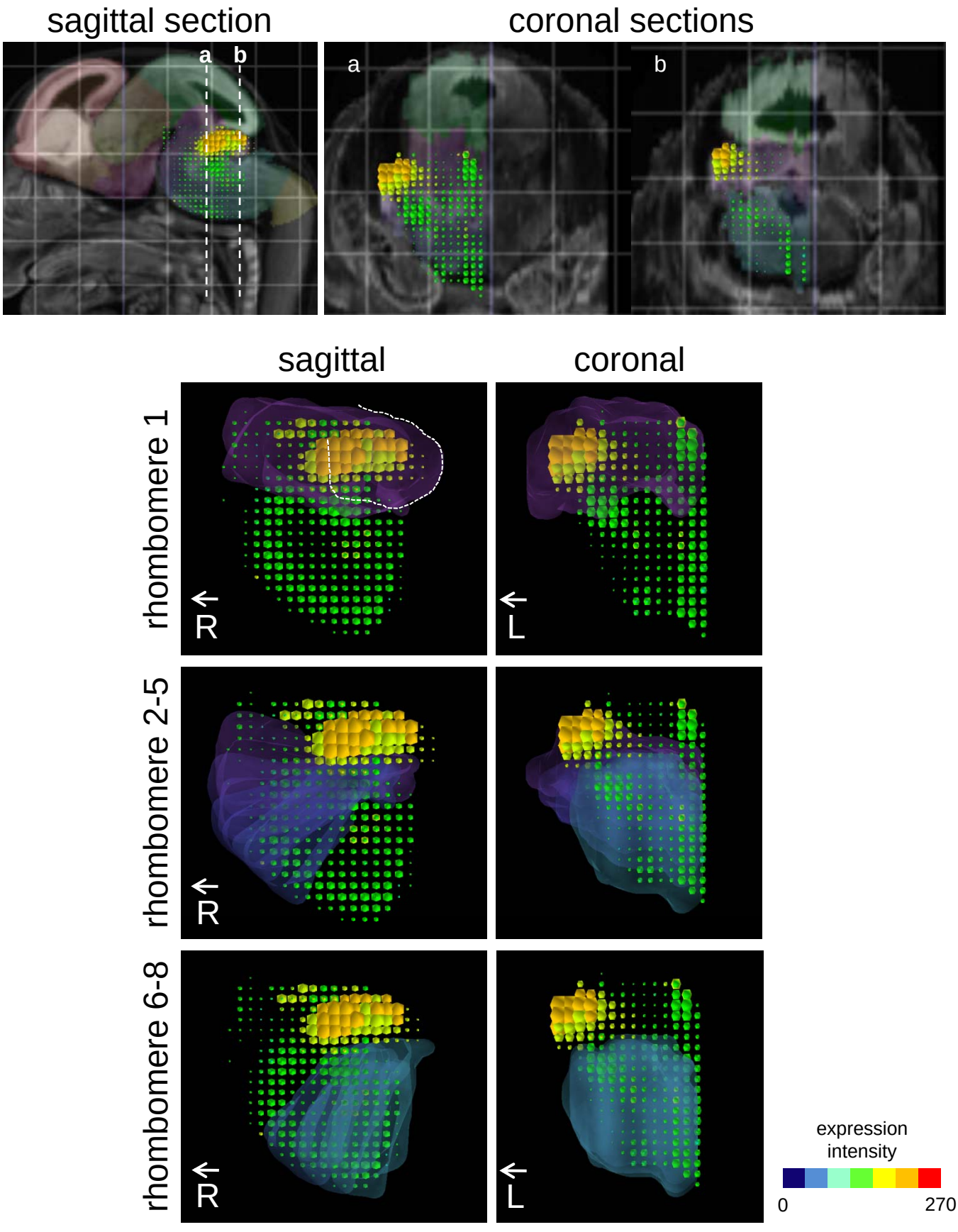
E13.5

E15.5

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

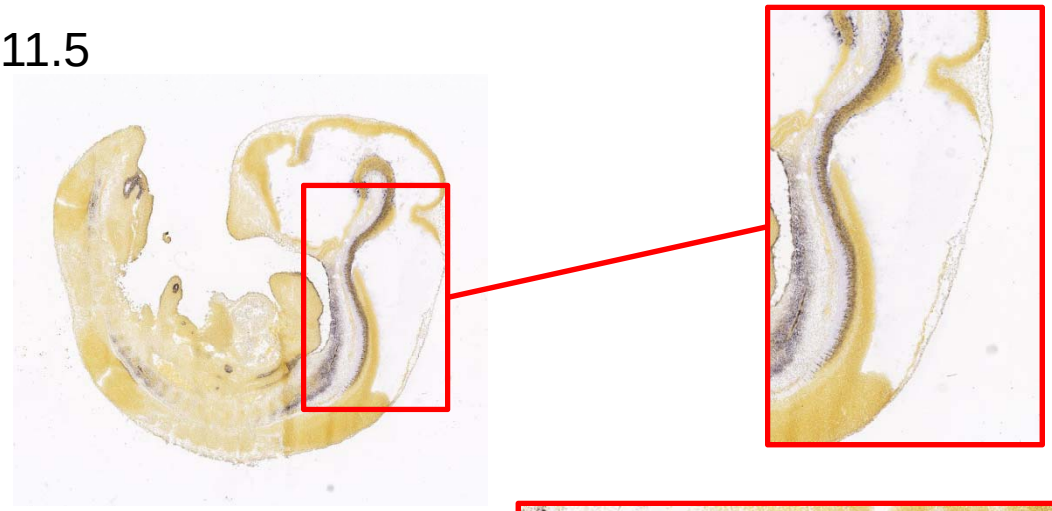


WNT-subgroup gene: *Lrrn*, Leucine rich repeat protein 3 (E15.5)



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

E11.5

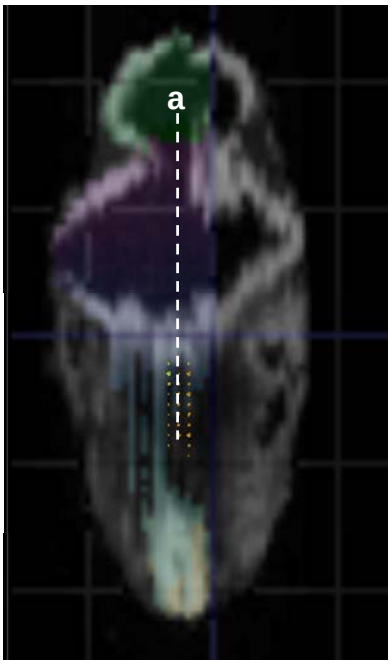


E13.5

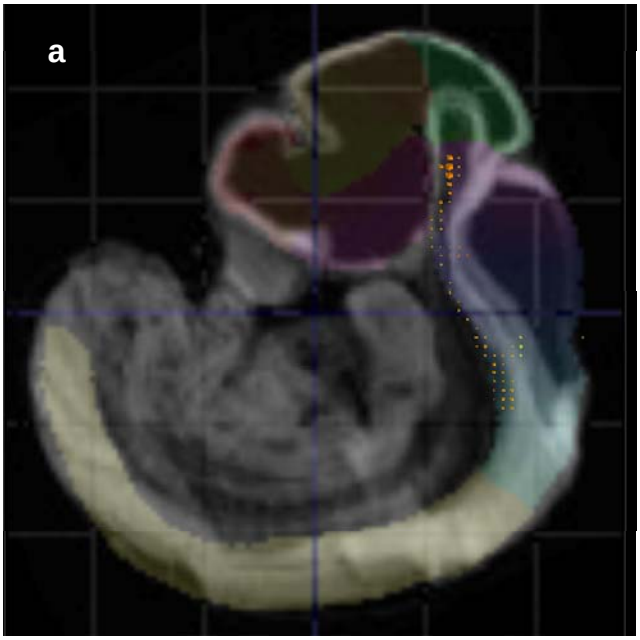
E15.5

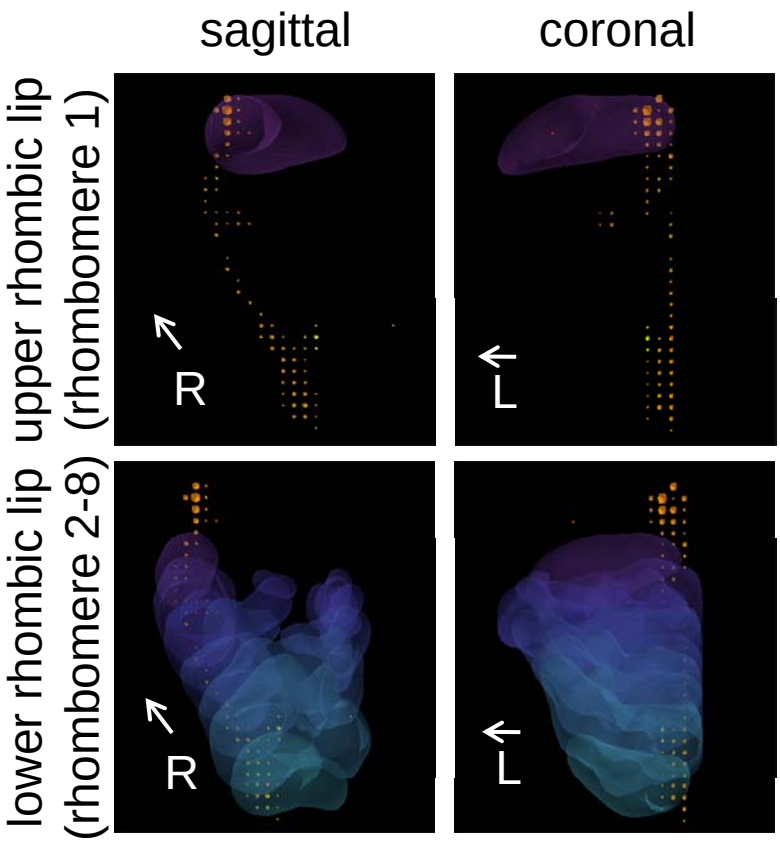
WNT-subgroup gene: *Foxa1*, Forkhead box A1 (E11.5)

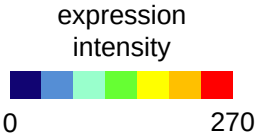
coronal section



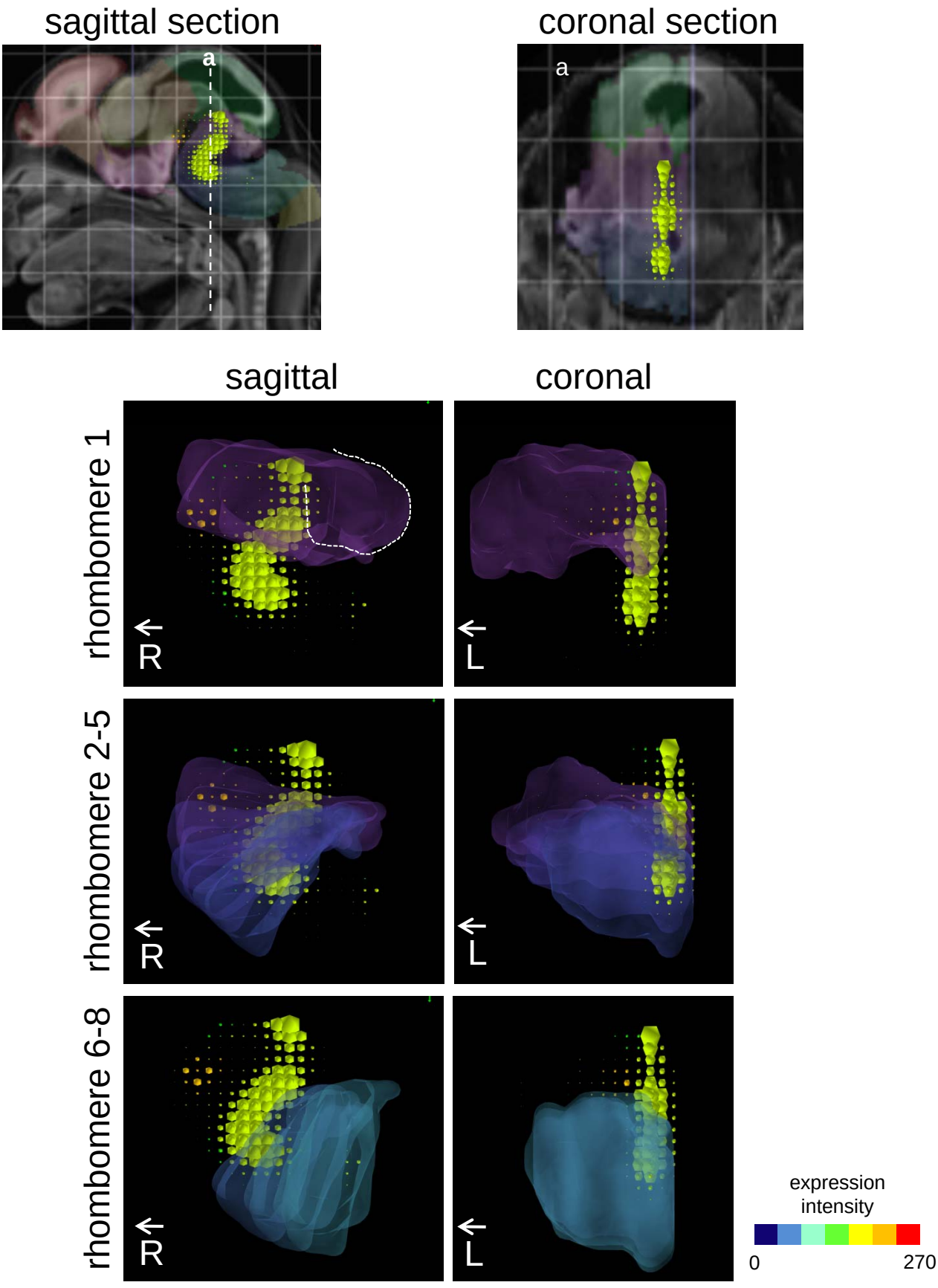
sagittal section





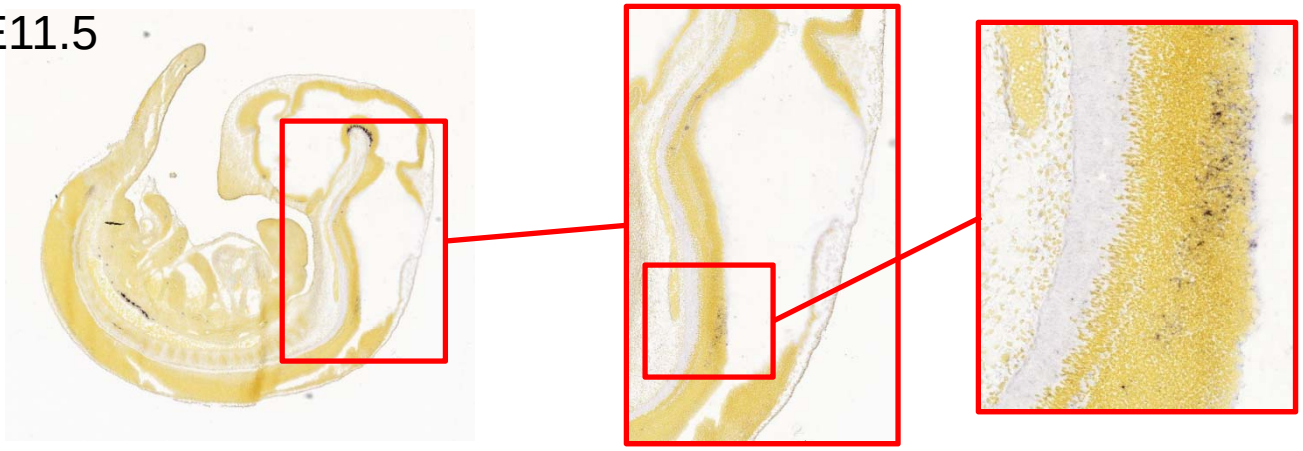


WNT-subgroup gene: *Foxa1*, Forkhead box A1 (E15.5)

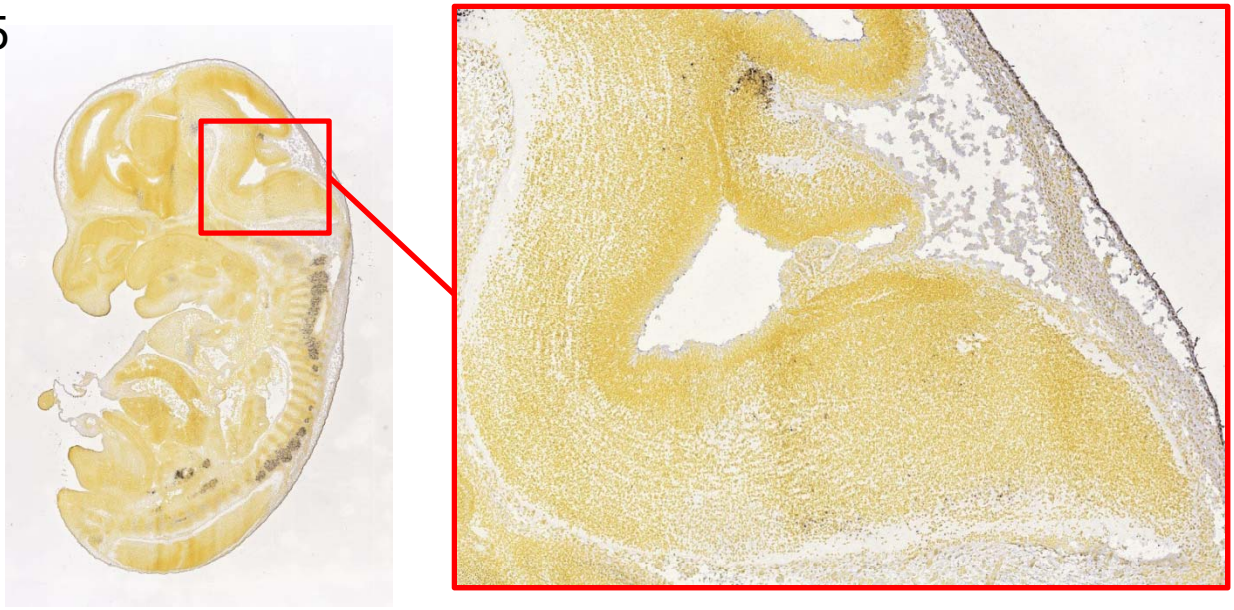


WNT-subgroup gene: *Th*, Tyrosine hydroxylase (Iin situ)

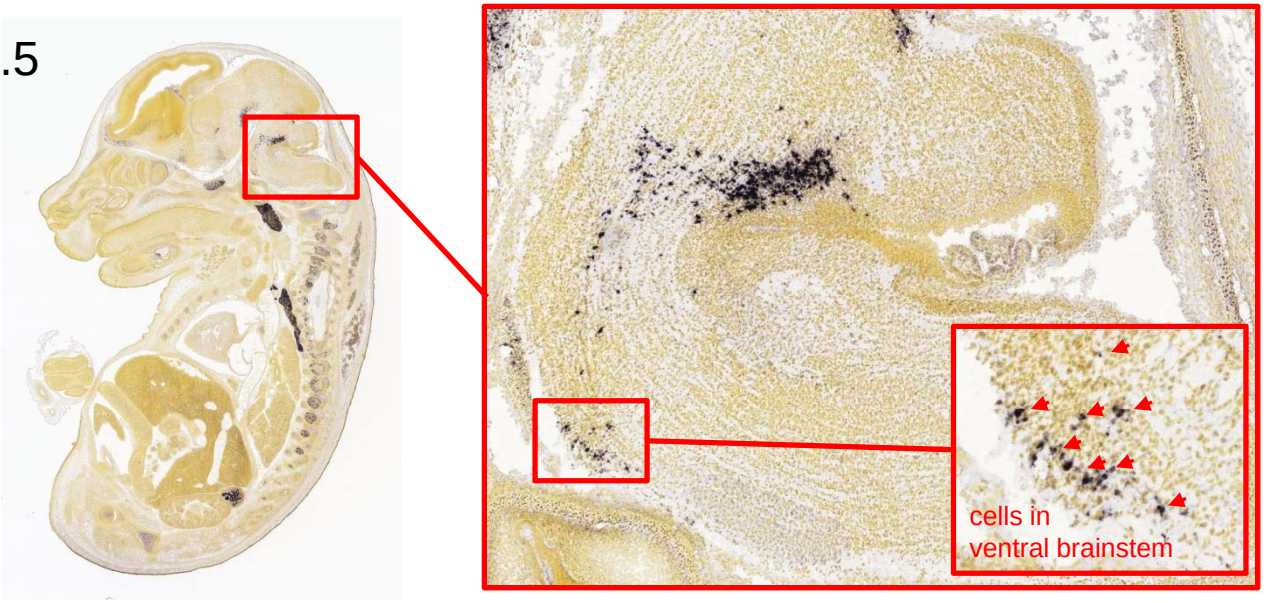
E11.5



E13.5

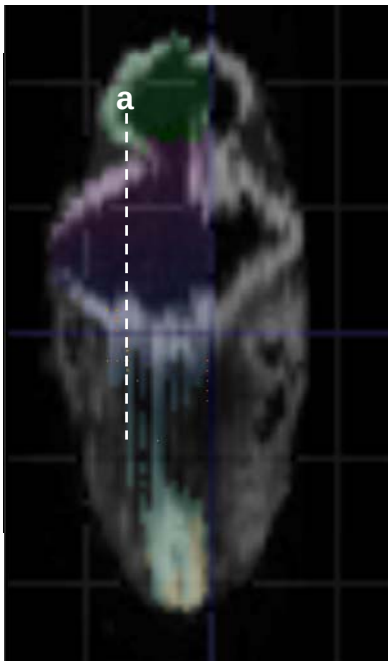


E15.5

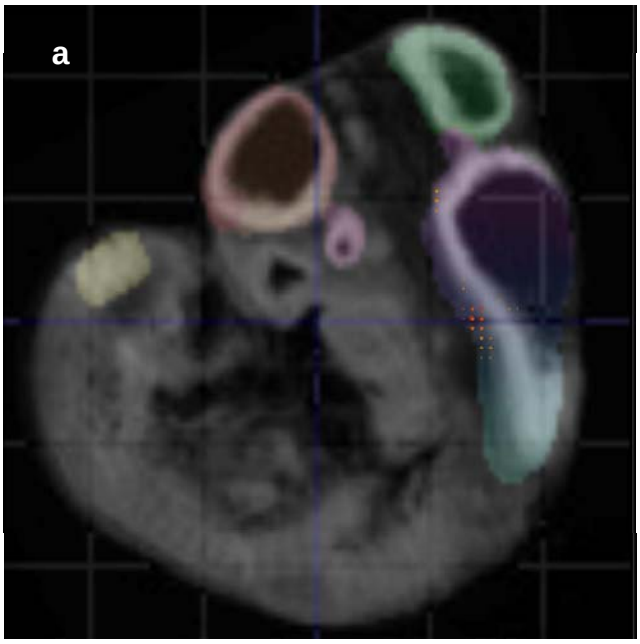


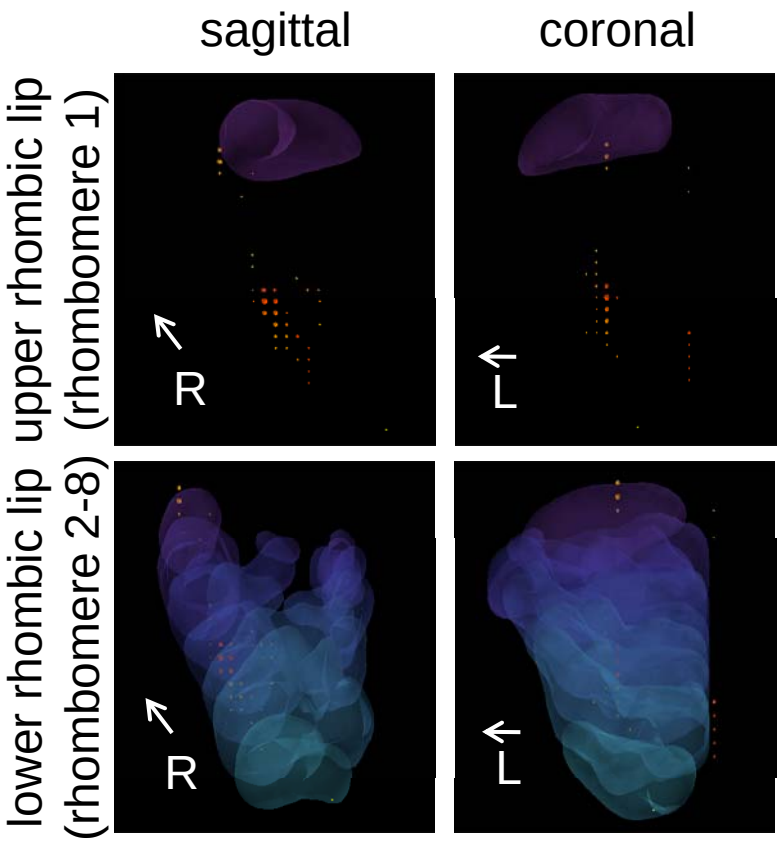
WNT-subgroup gene: *Th*, Tyrosine hydroxylase (E11.5)

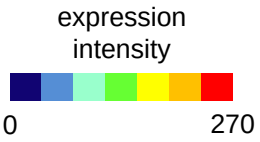
coronal section



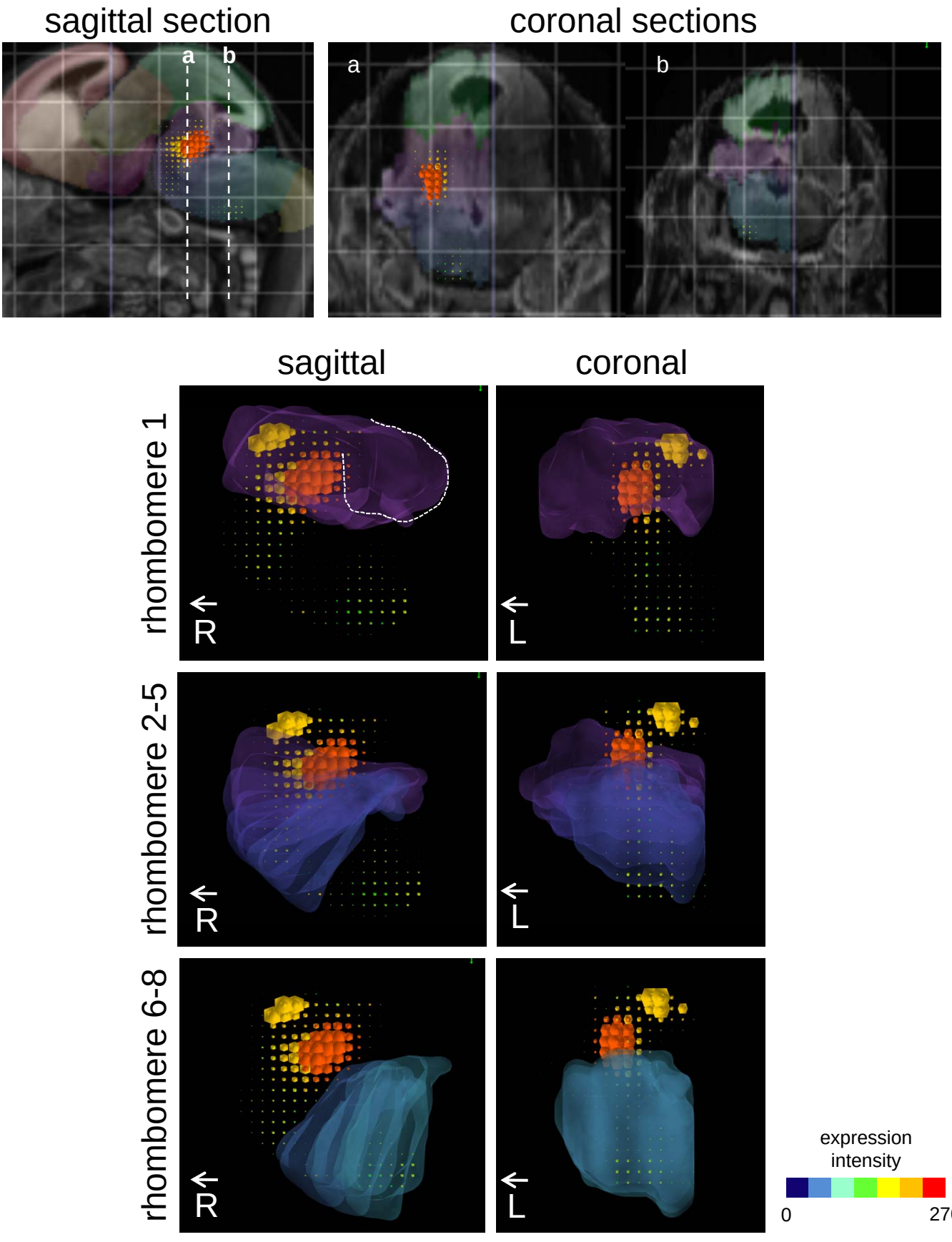
sagittal section







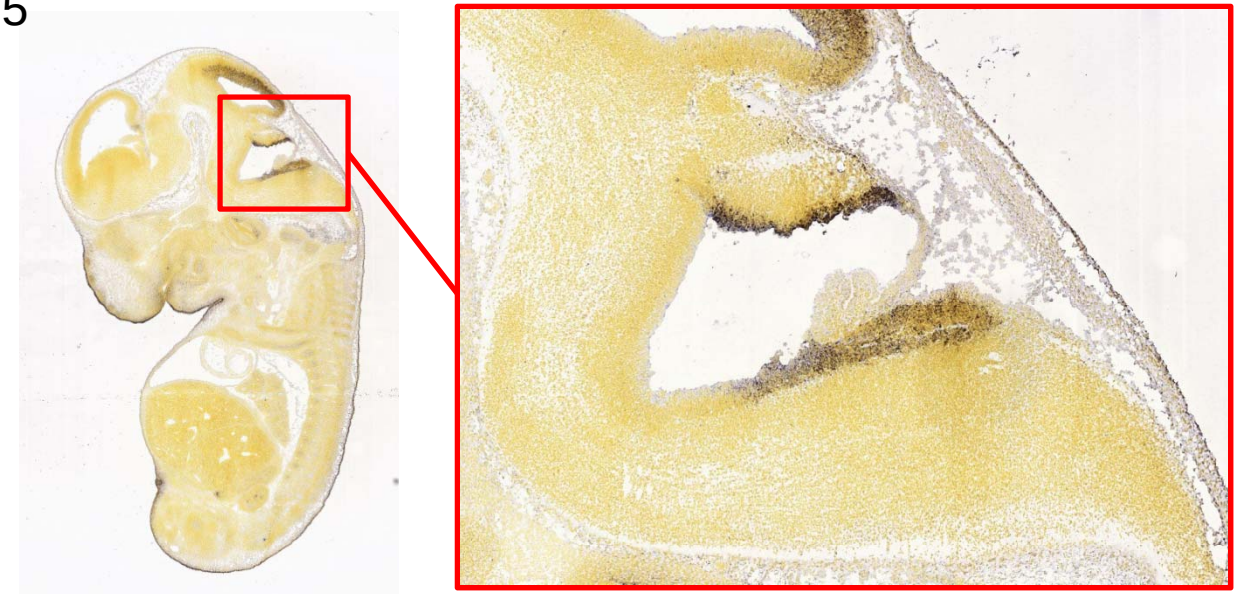
WNT-subgroup gene: *Th*, Tyrosine hydroxylase (E15.5)



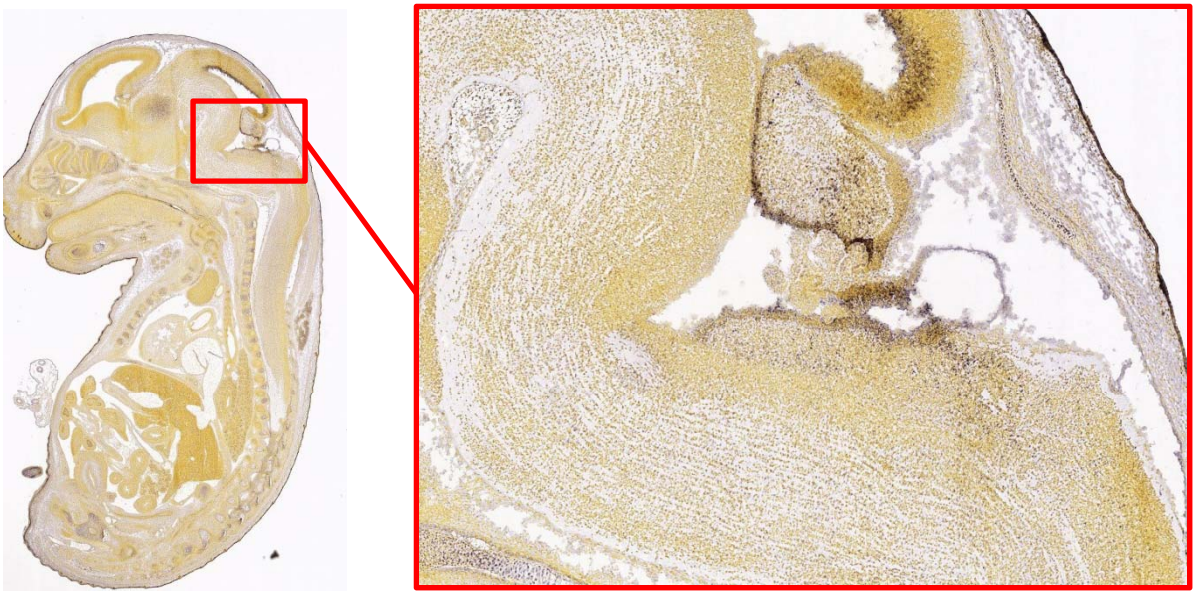
WNT-subgroup gene: *Fzd10*, Frizzled homolog 10 (*in situ*)

E11.5

E13.5

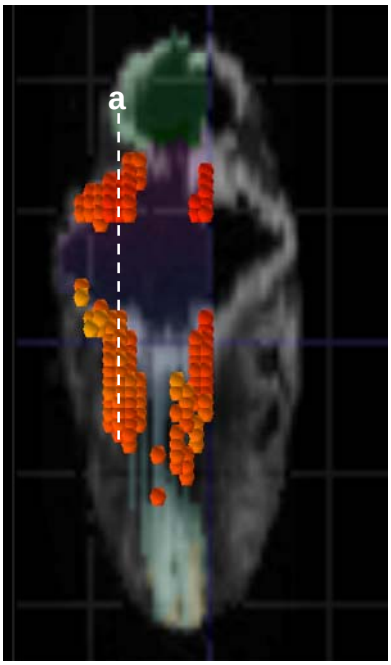


E15.5

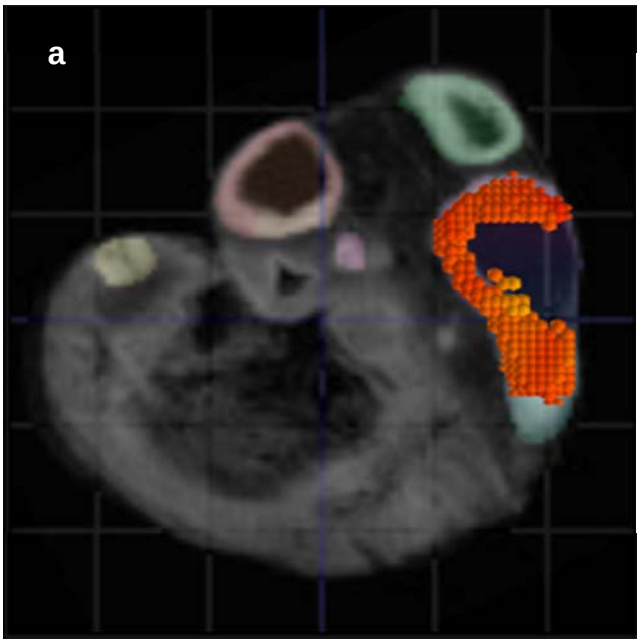


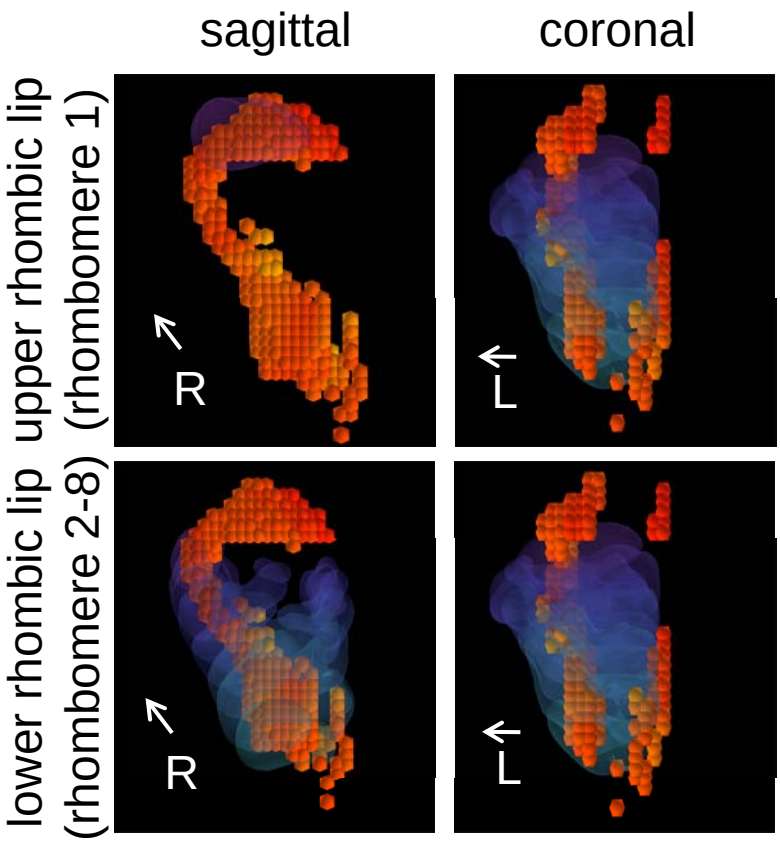
WNT-subgroup gene: *Fzd10*, Frizzled homolog 10 (E11.5)

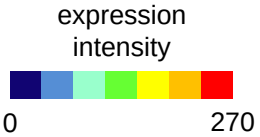
coronal section



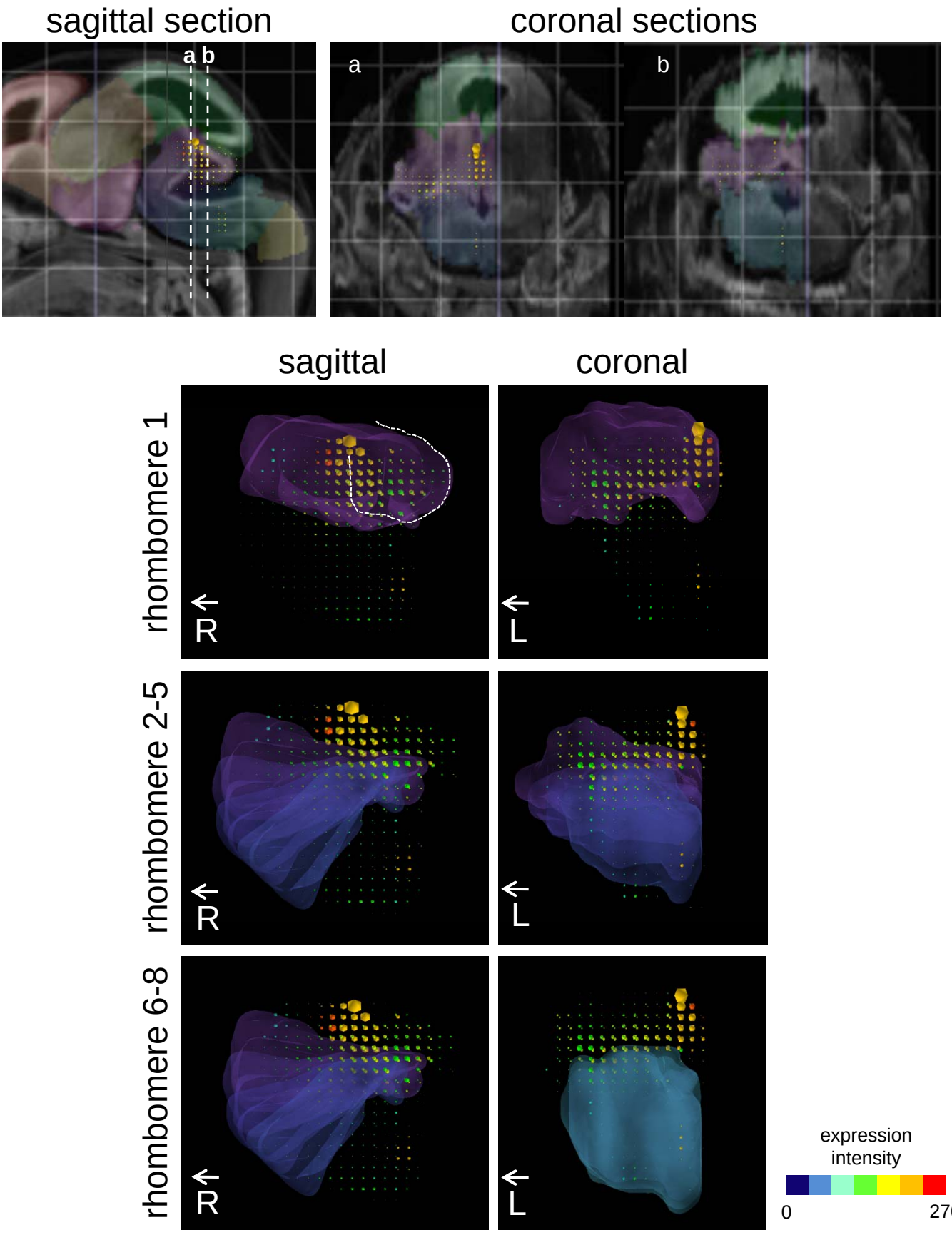
sagittal section





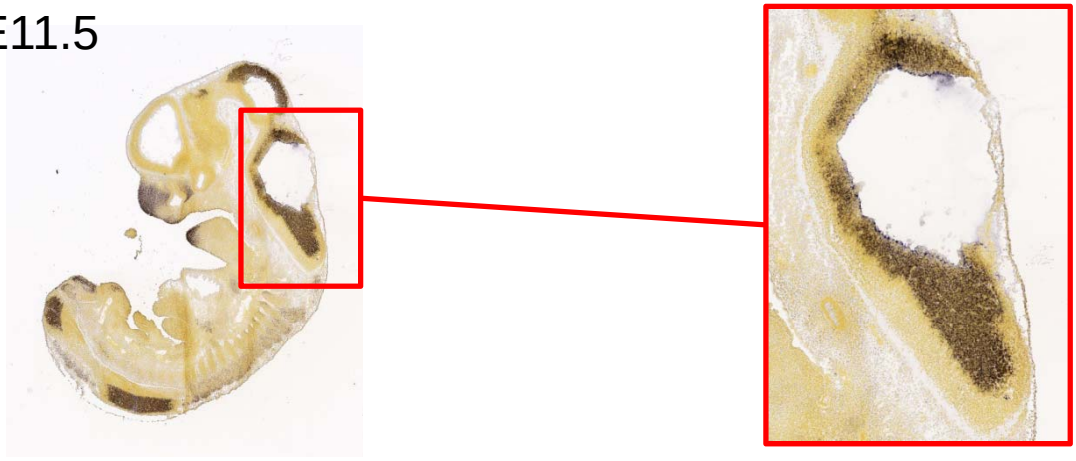


WNT-subgroup gene: *Fzd10*, Frizzled homolog 10 (E15.5)



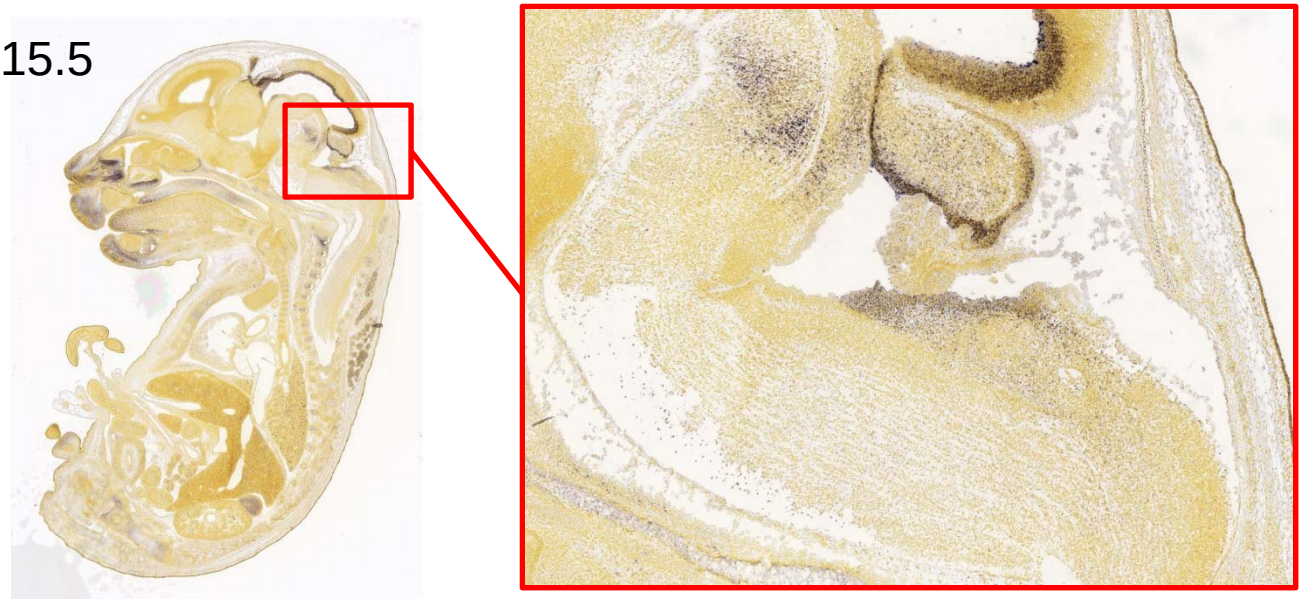
WNT-subgroup gene: *Pax3*, Paired box 3 (*in situ*)

E11.5



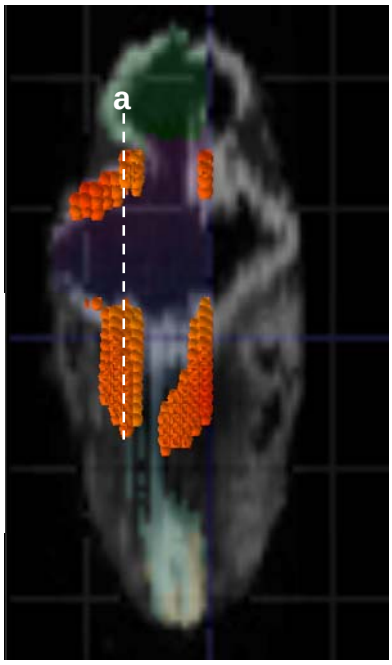
E13.5

E15.5

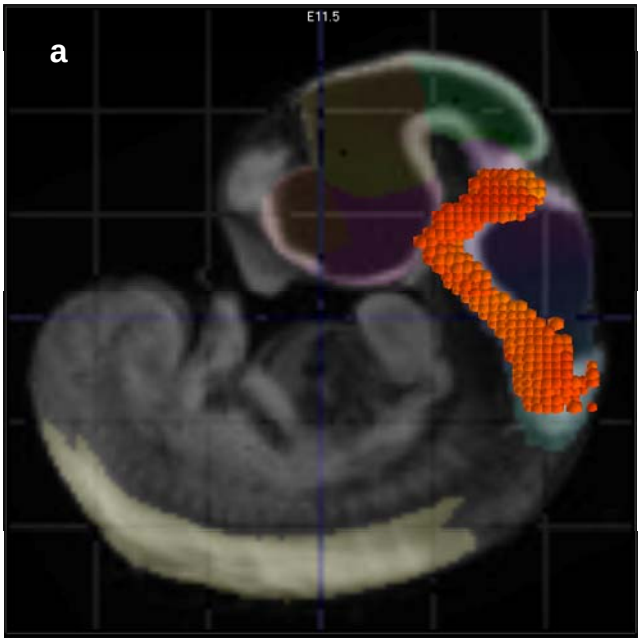


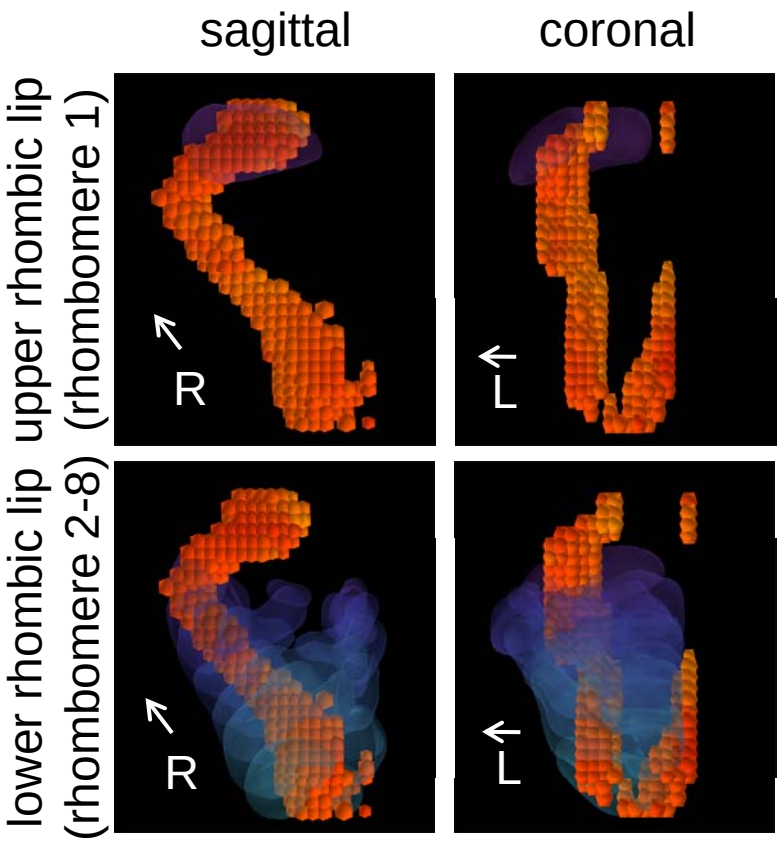
WNT-subgroup gene: *Pax3*, Paired box 3 (E11.5)

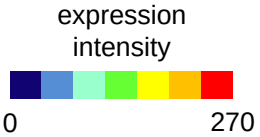
coronal section



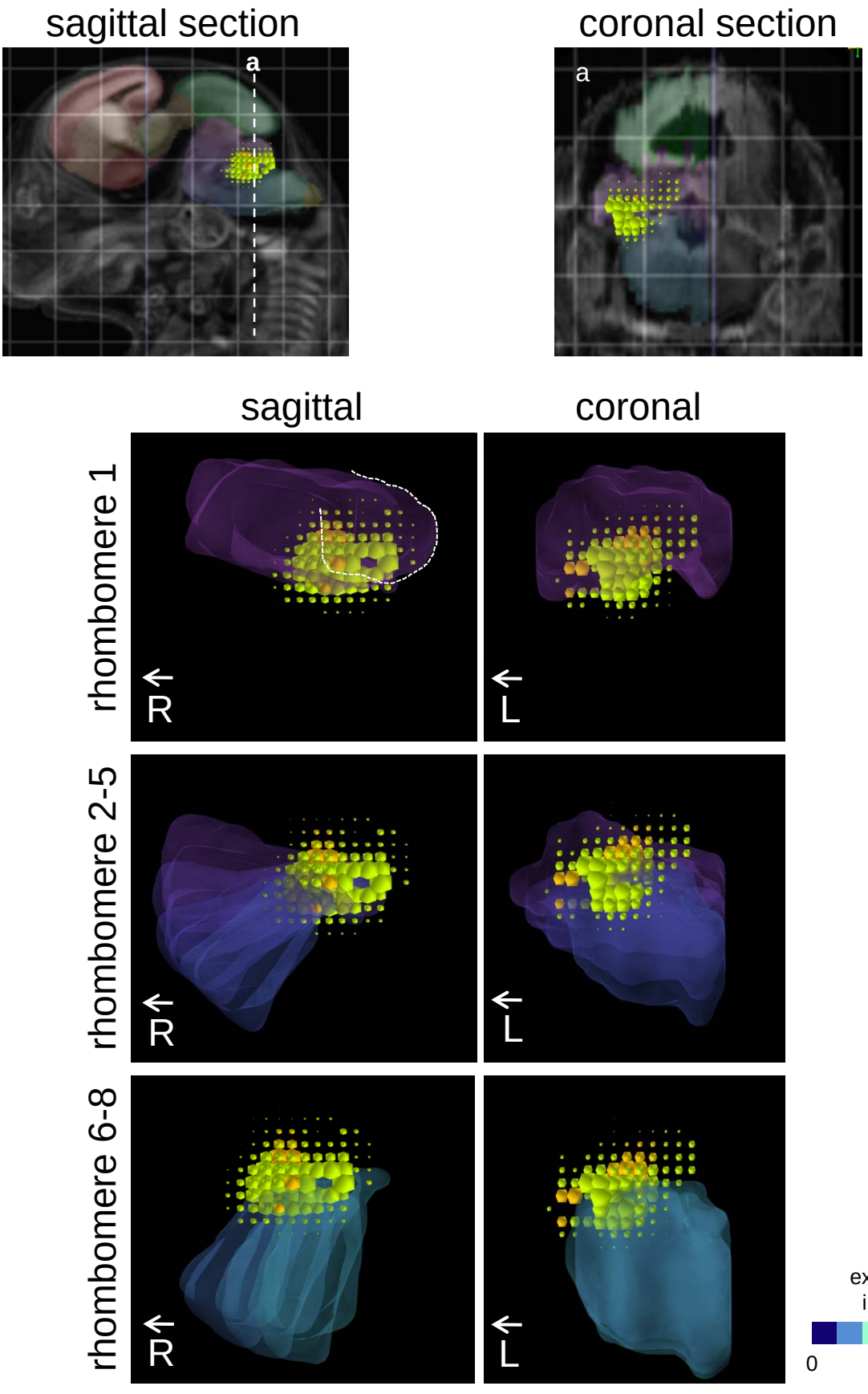
sagittal section





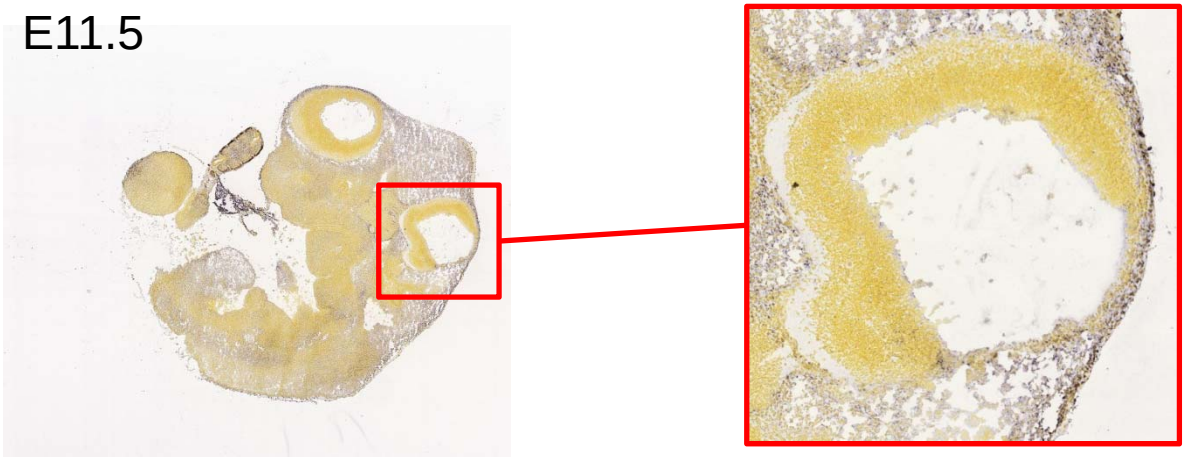


WNT-subgroup gene: *Pax3*, Paired box 3 (E15.5)



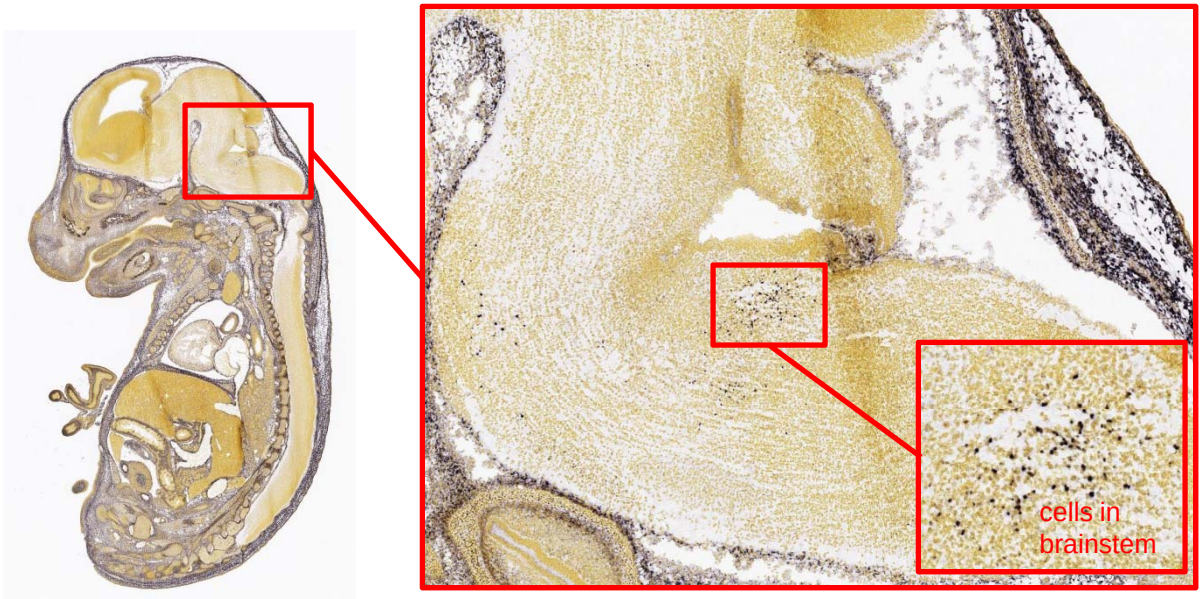
WNT-subgroup gene: *Col5a1*, Procollagen Va1 (*in situ*)

E11.5



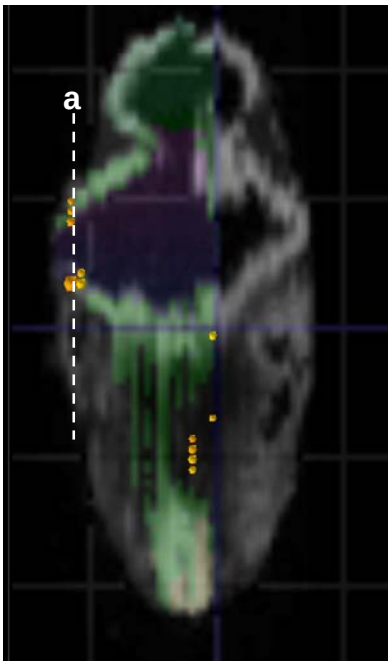
E13.5

E15.5

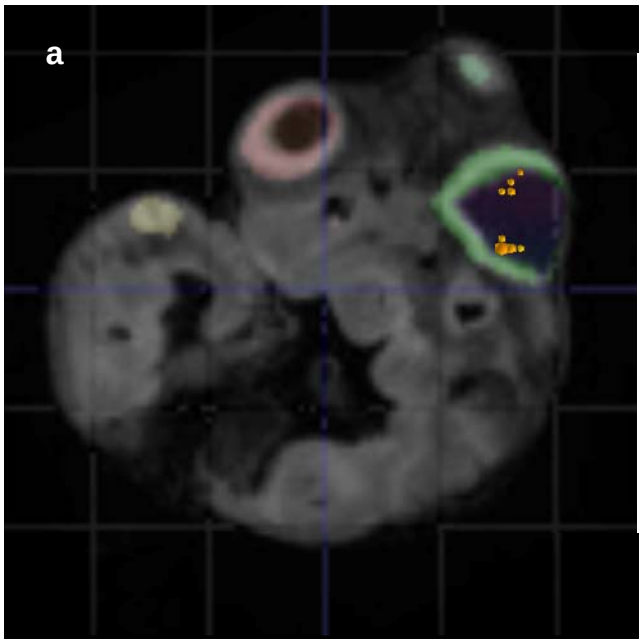


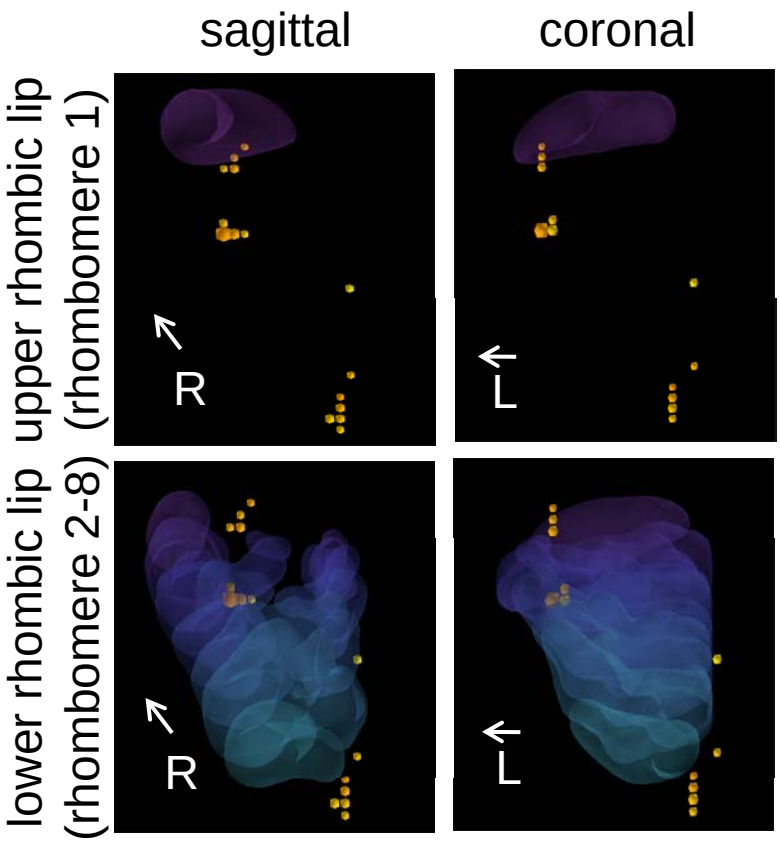
WNT-subgroup gene: *Col5a1*, Procollagen Va1 (E11.5)

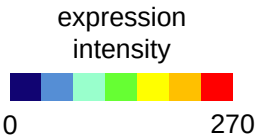
coronal section



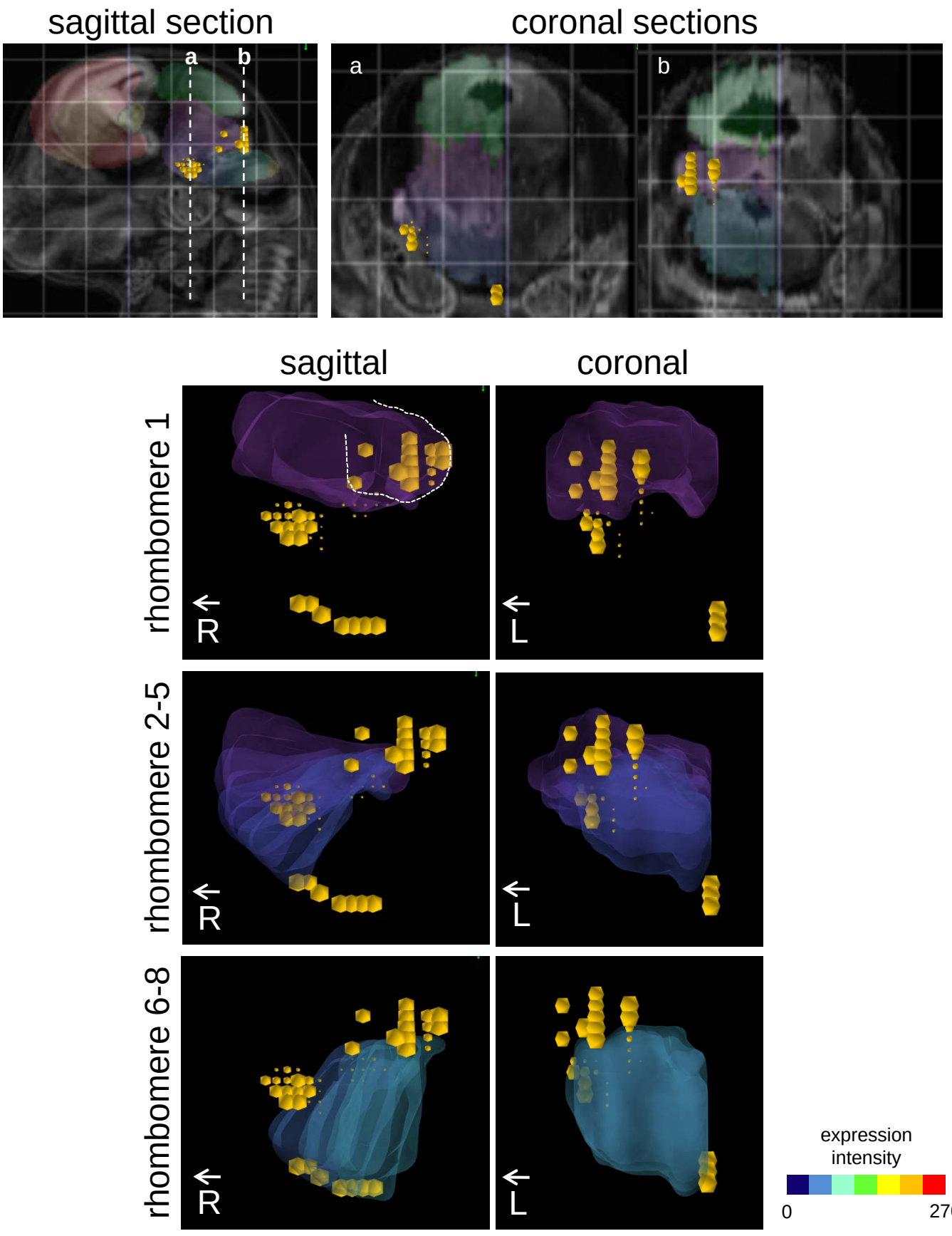
sagittal section





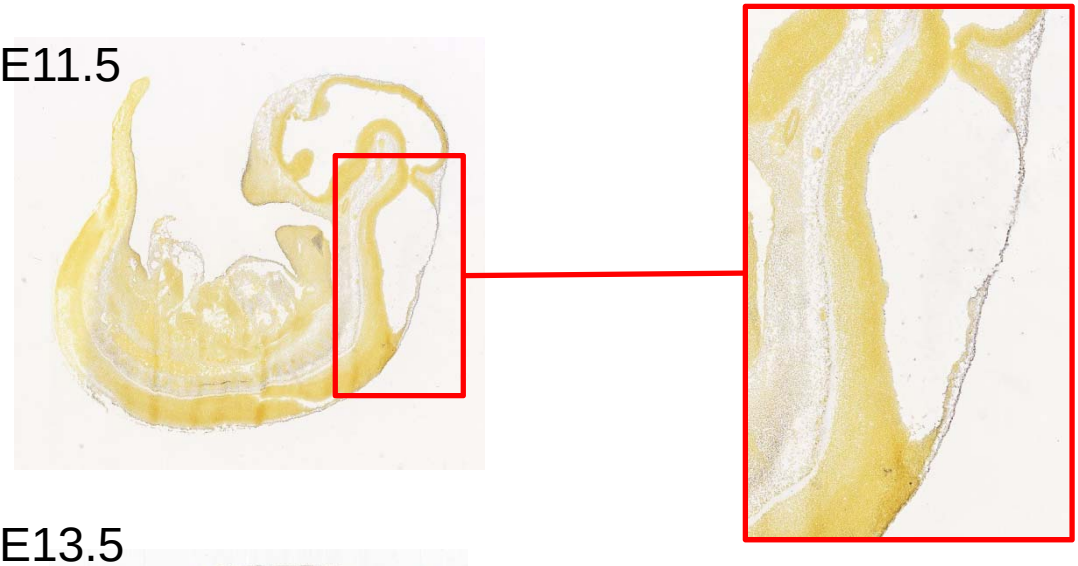


WNT-subgroup gene: *Col5a1*, Procollagen Va1 (E15.5)

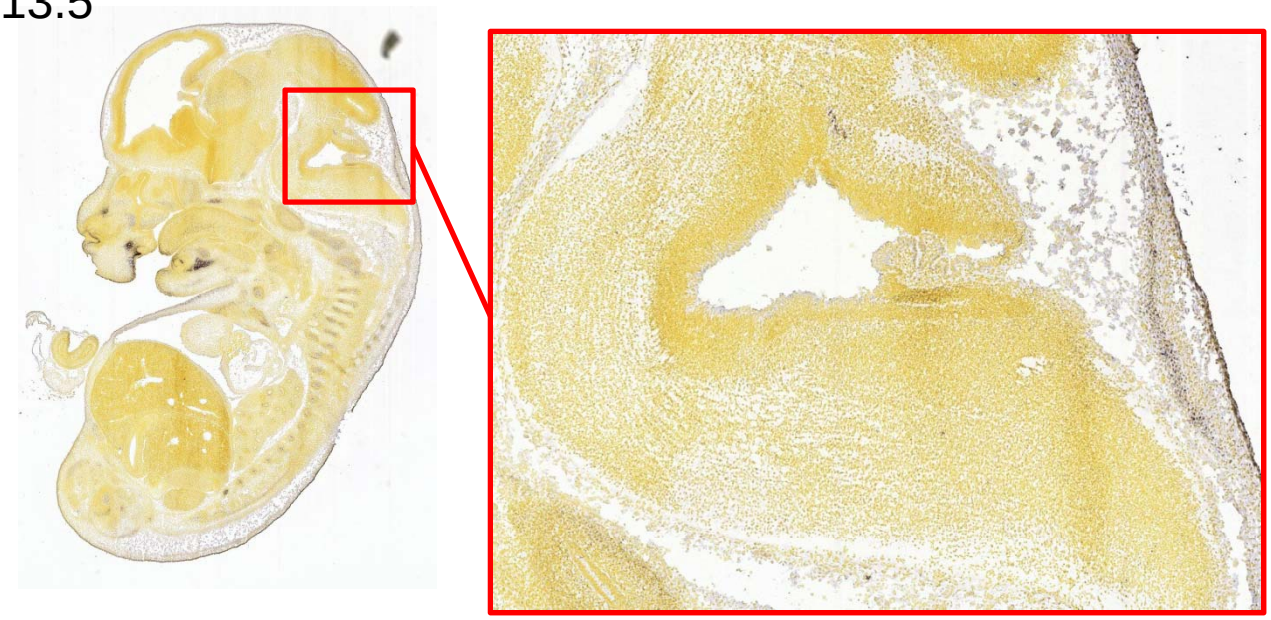


WNT-subgroup gene: *Wif1*, Wnt inhibitory factor 1 (*in situ*)

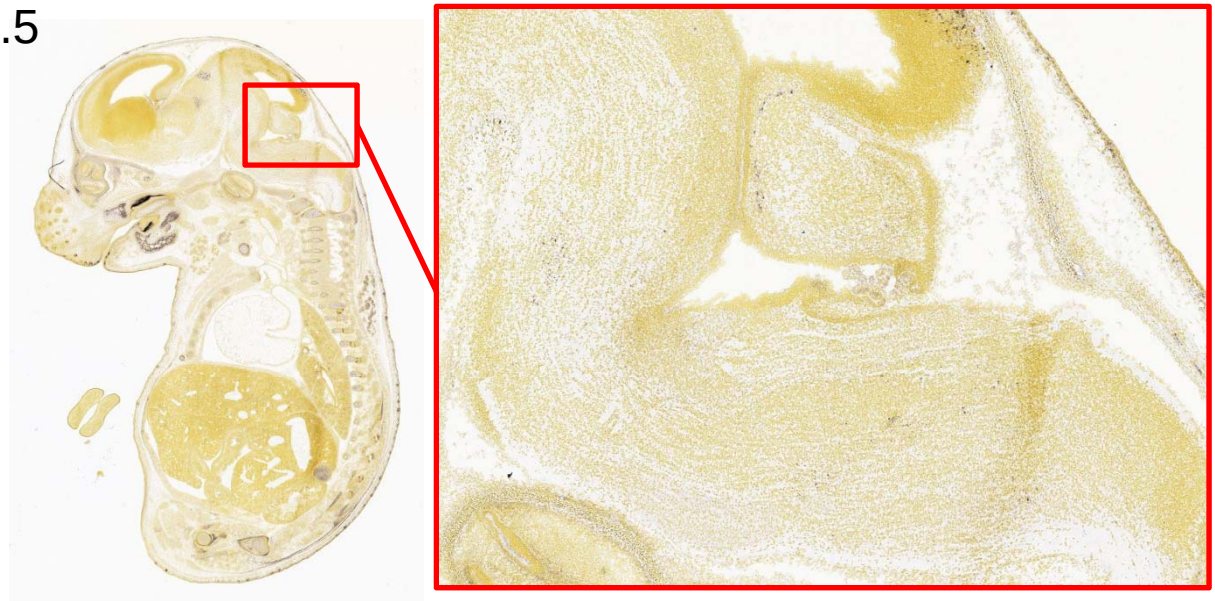
E11.5



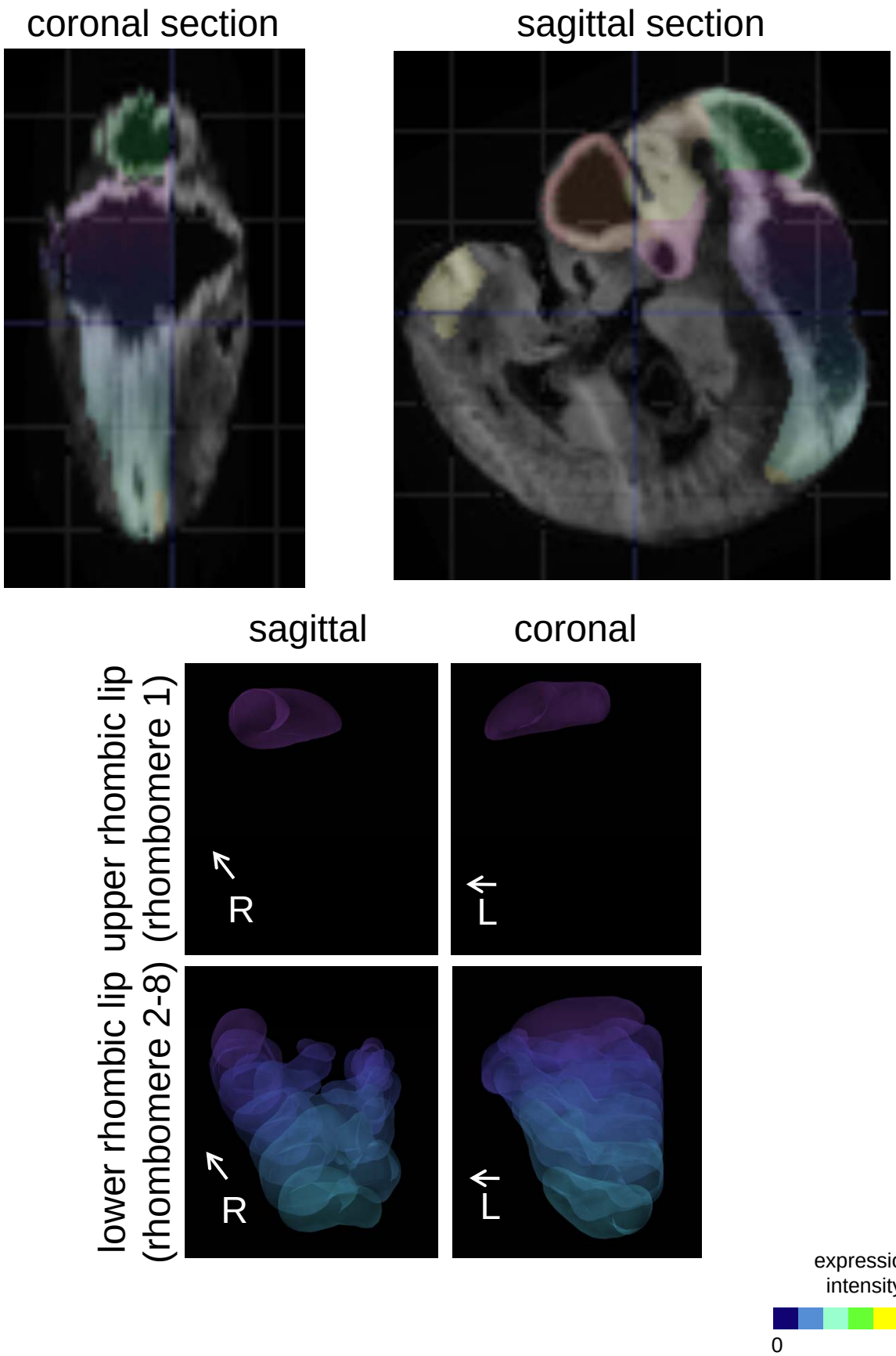
E13.5



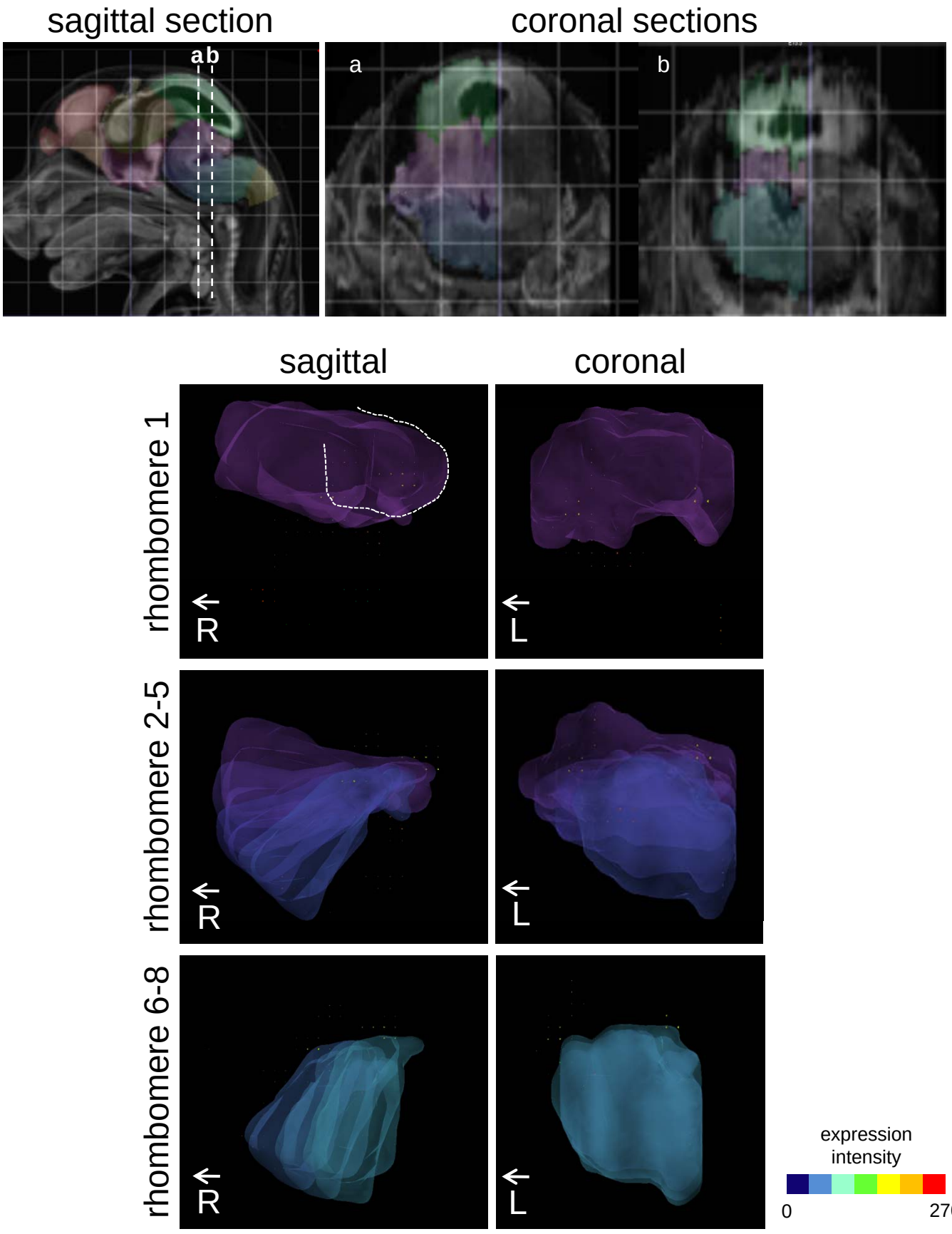
E15.5



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



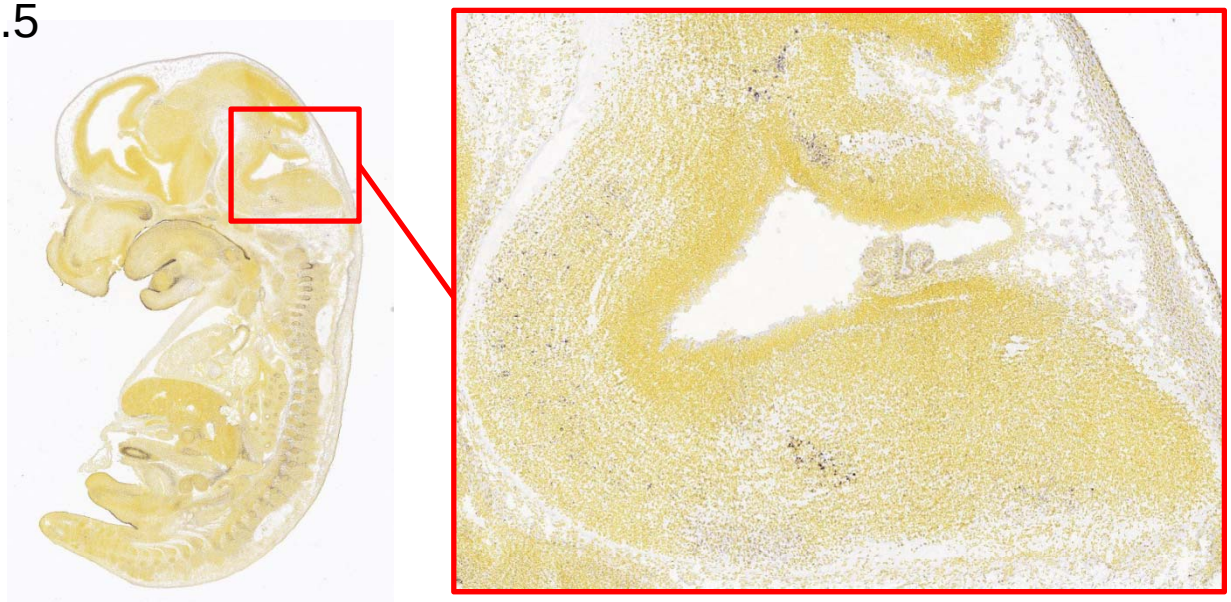
WNT-subgroup gene: *Wif1*, Wnt inhibitory factor 1 (E15.5)



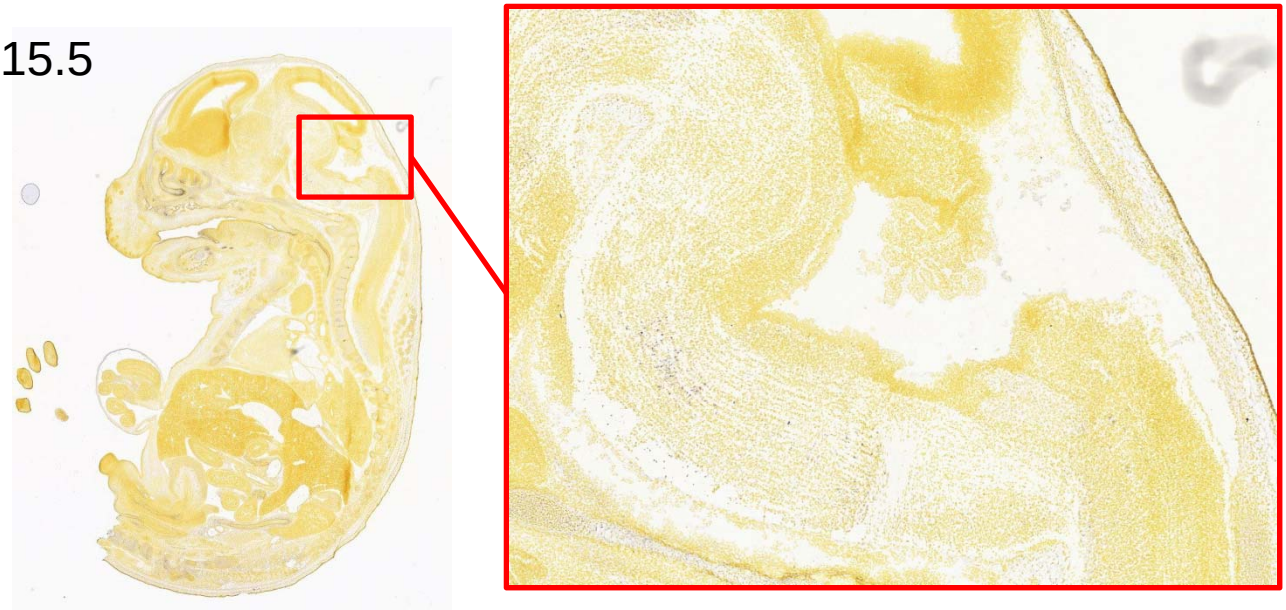
WNT-subgroup gene: *Lgi2*, Leucine rich repeat protein 2 (*in situ*)

E11.5

E13.5

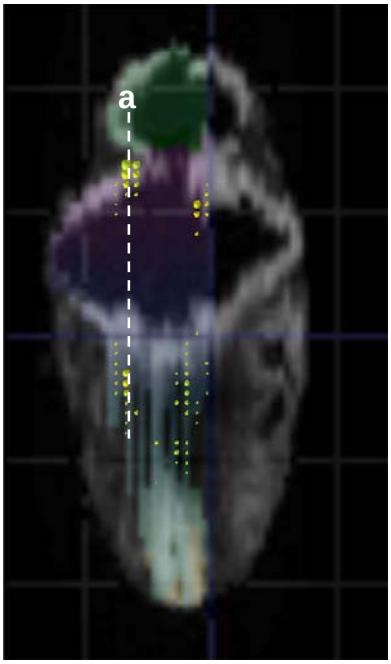


E15.5

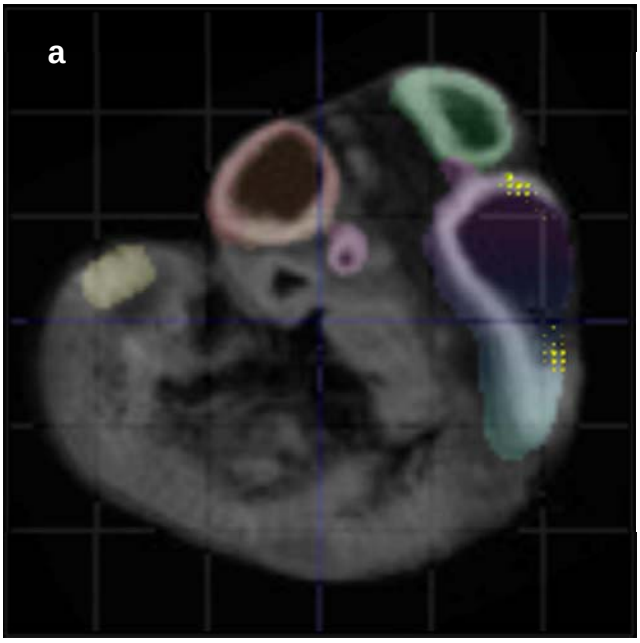


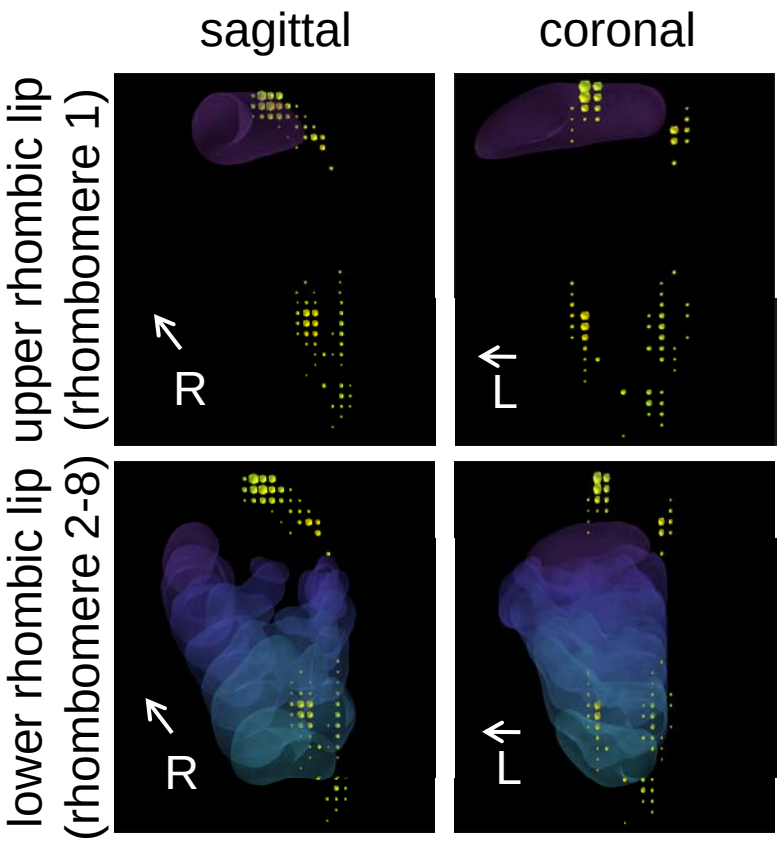
WNT-subgroup gene: *Lgi2*, Leucine rich repeat protein 2 (E11.5)

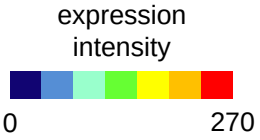
coronal section



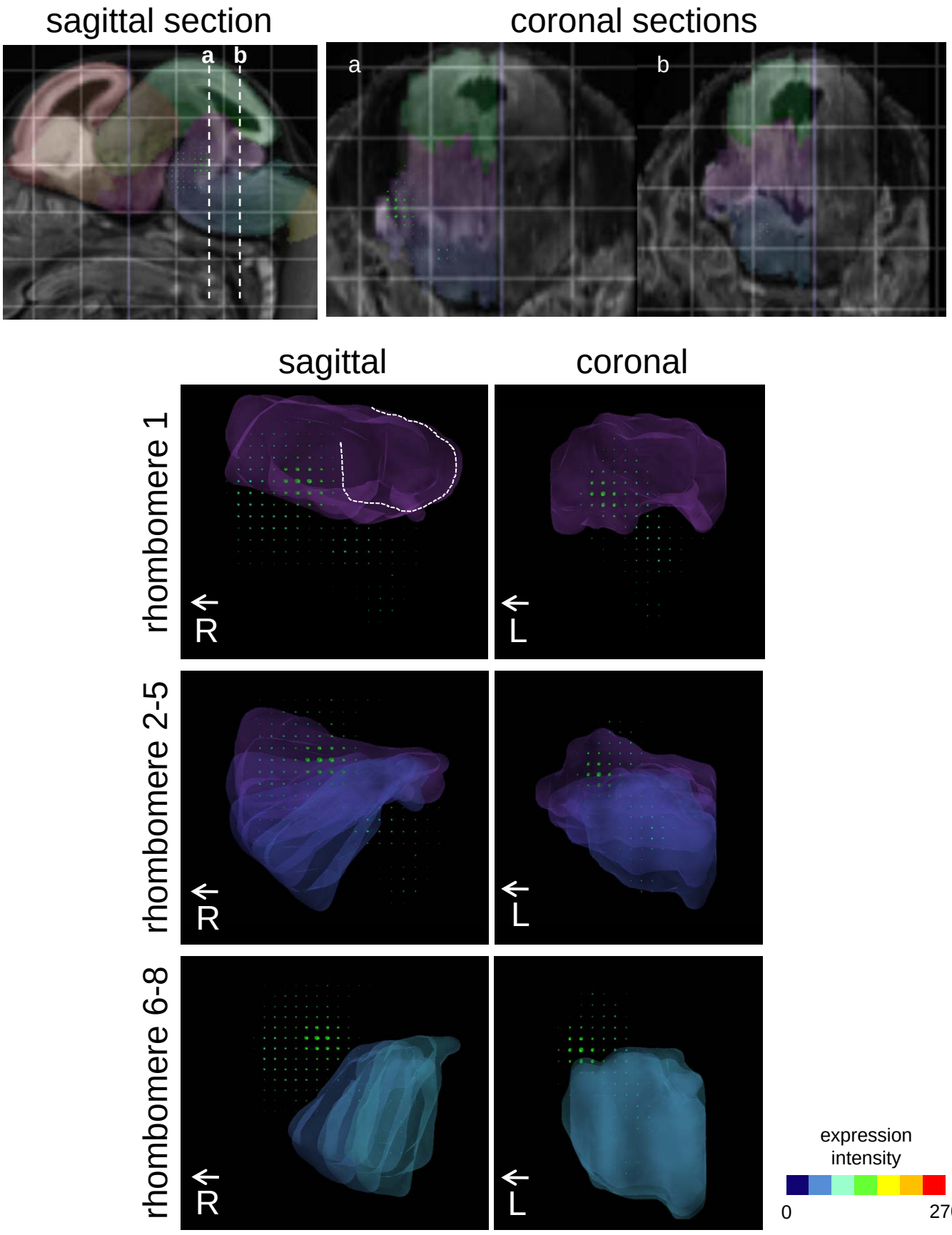
sagittal section





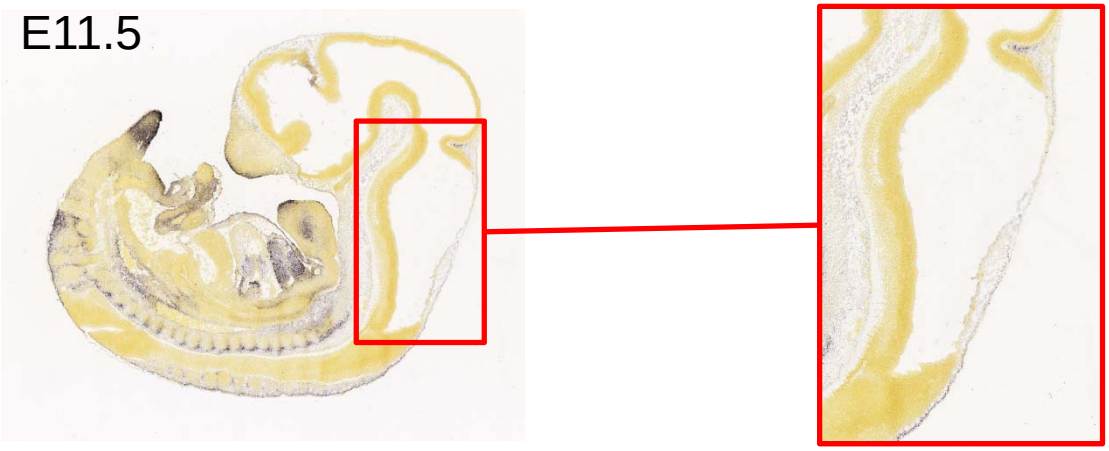


WNT-subgroup gene: *Lgi2*, Leucine rich repeat protein 2 (E15.5)

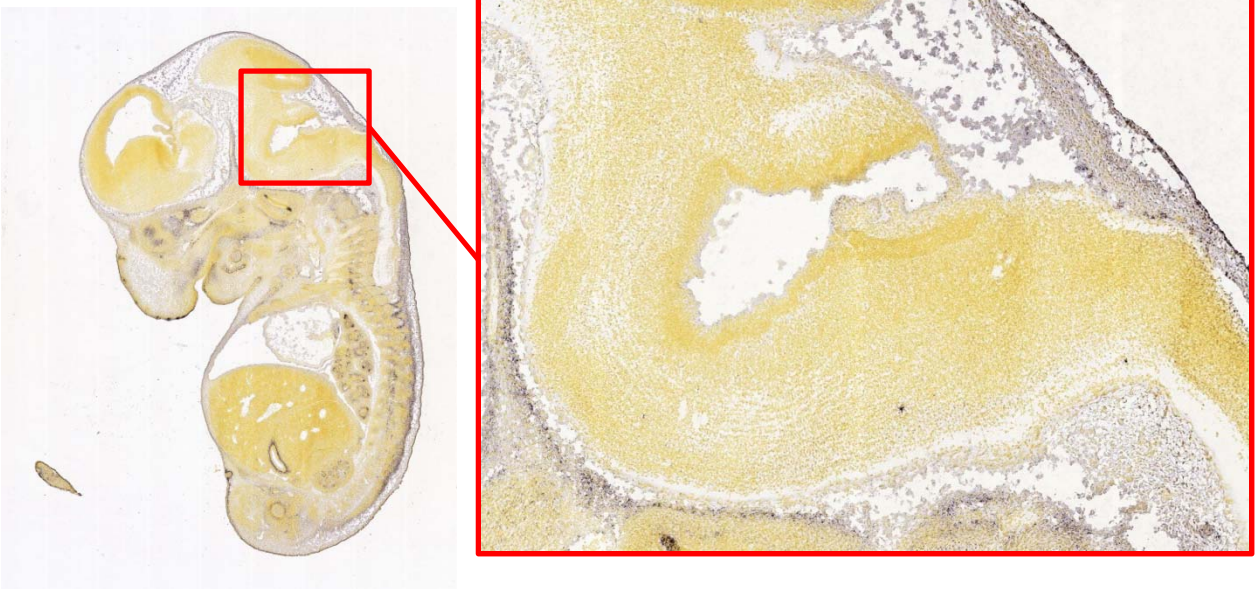


WNT-subgroup gene: *Bmp4*, Bone morphogenetic protein 4 (*in situ*)

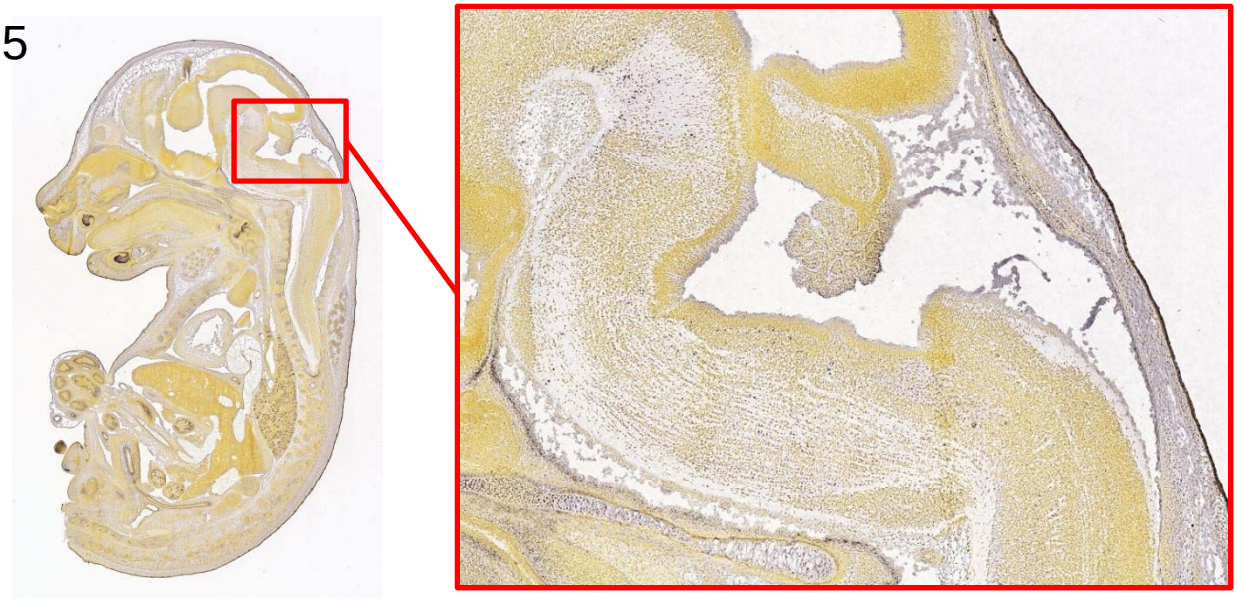
E11.5



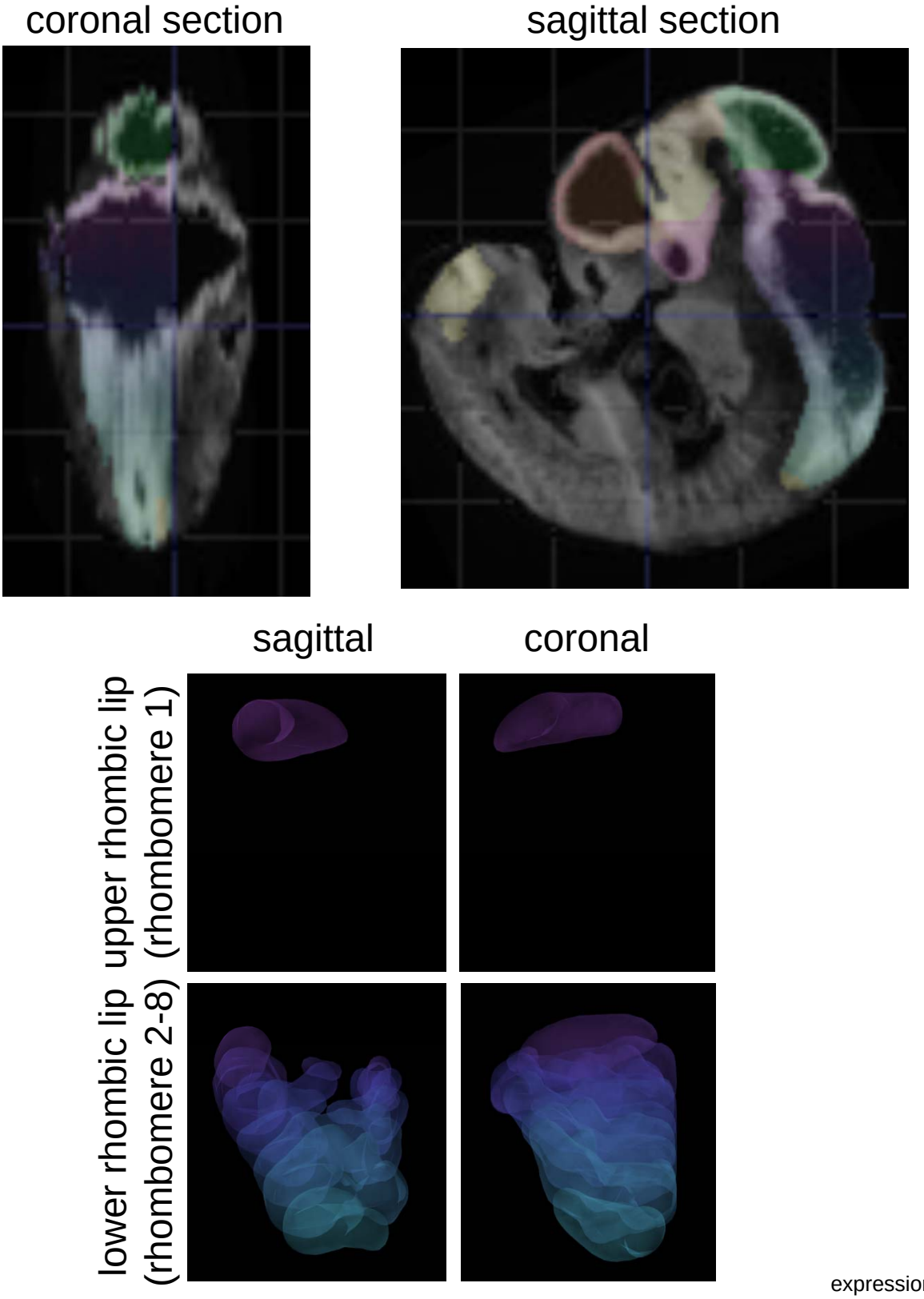
E13.5



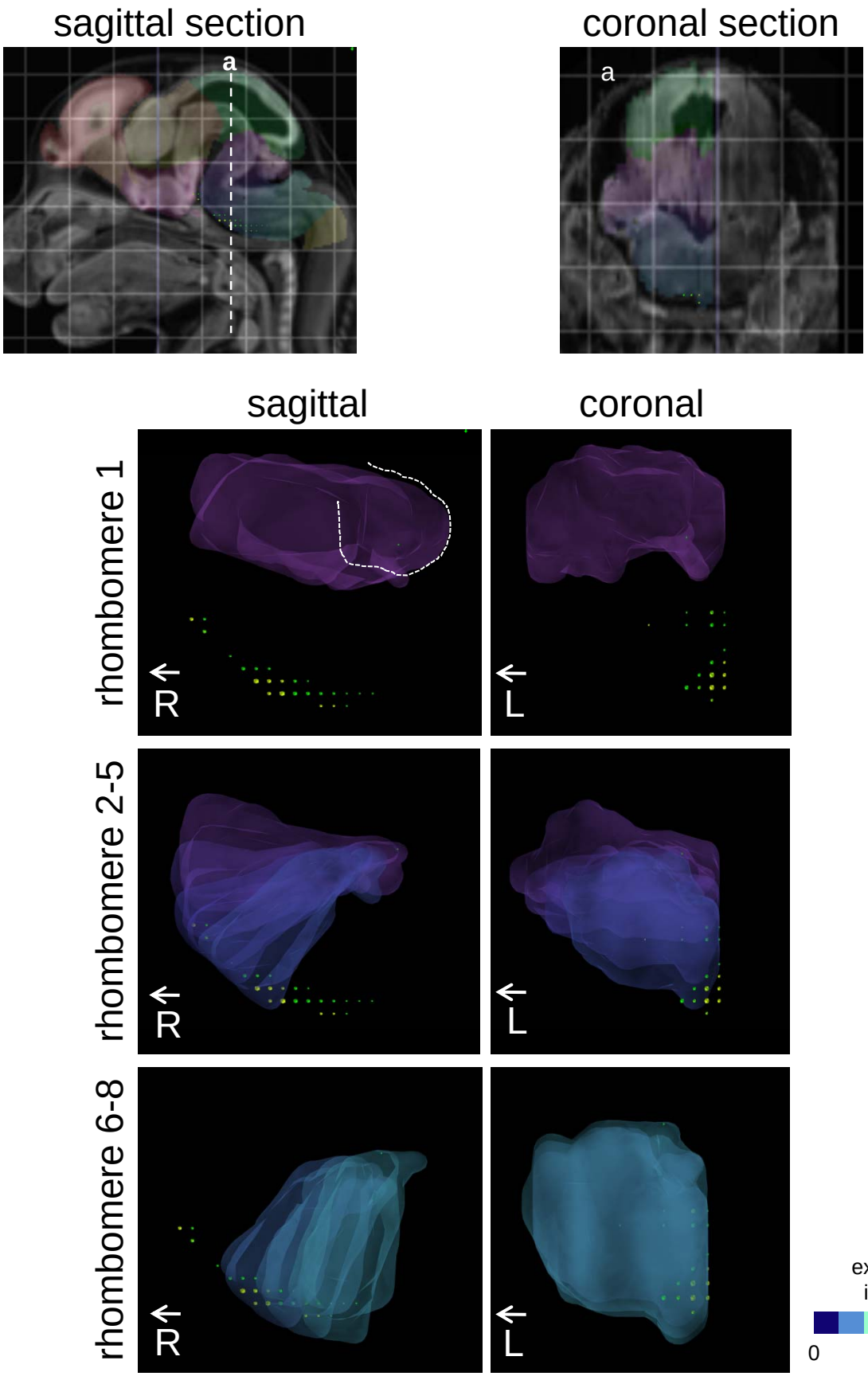
E15.5



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

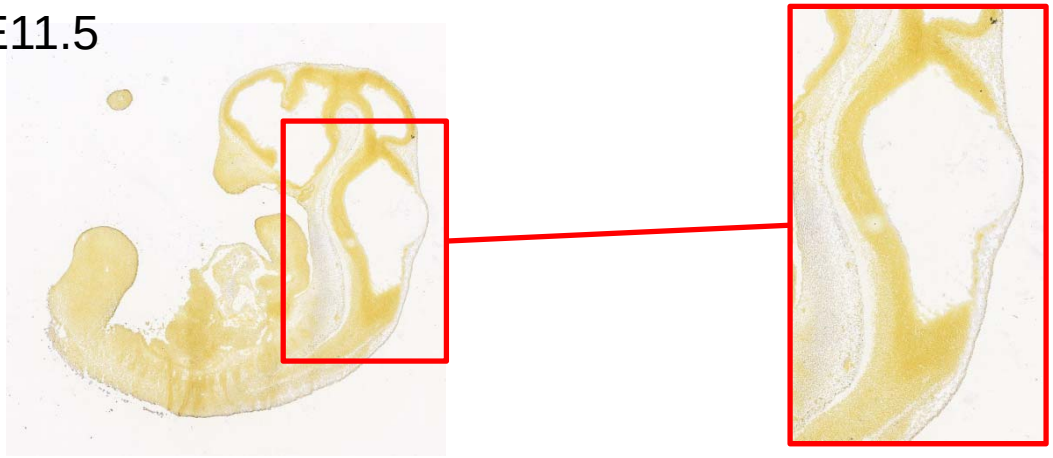


WNT-subgroup gene: *Bmp4*, Bone morphogenetic protein 4 (E15.5)

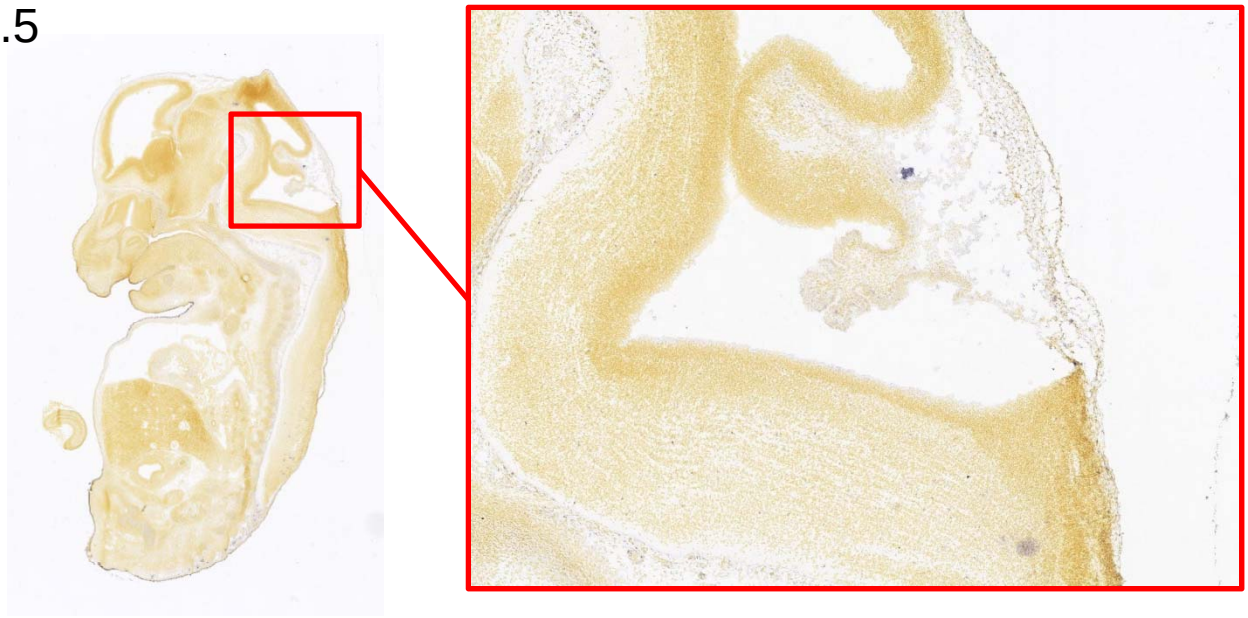


WNT-subgroup gene: *Fzd6*, Frizzled 6 (*in situ*)

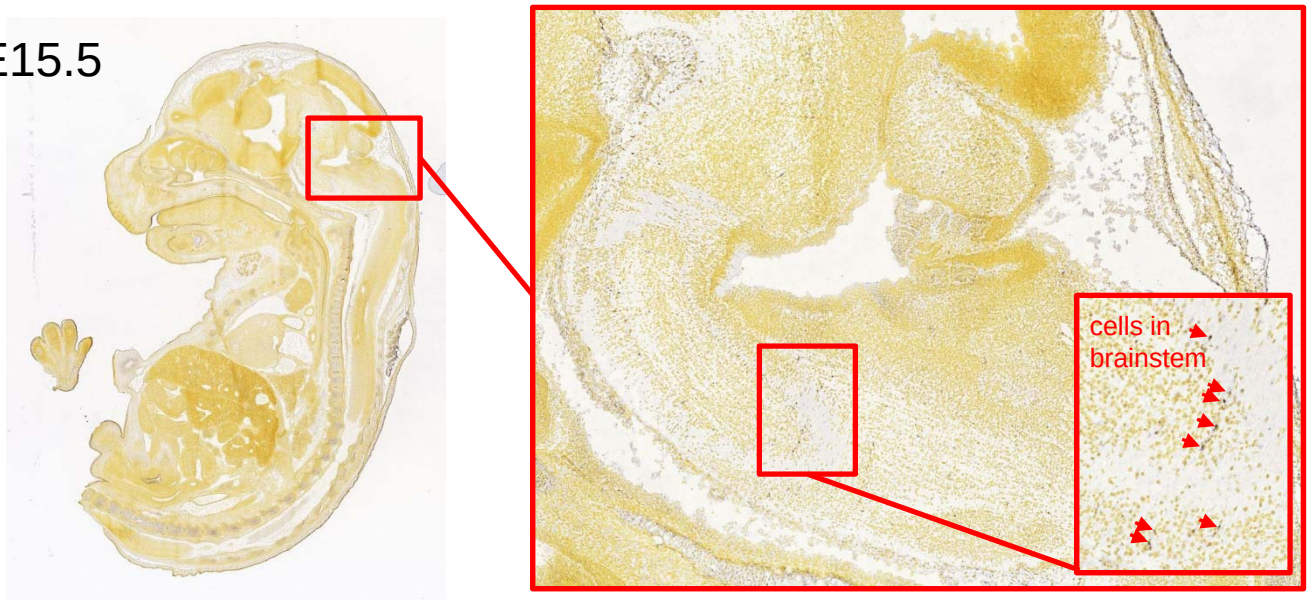
E11.5



E13.5

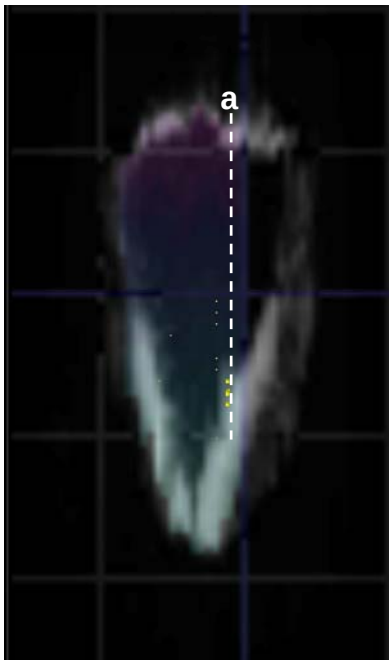


E15.5

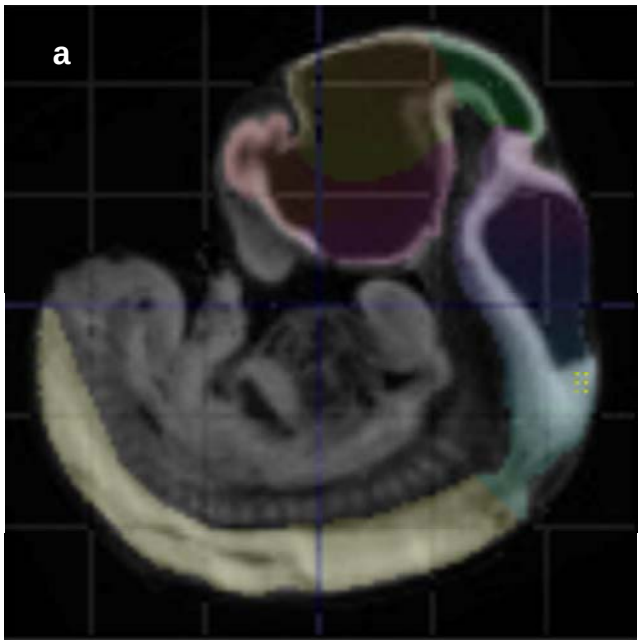


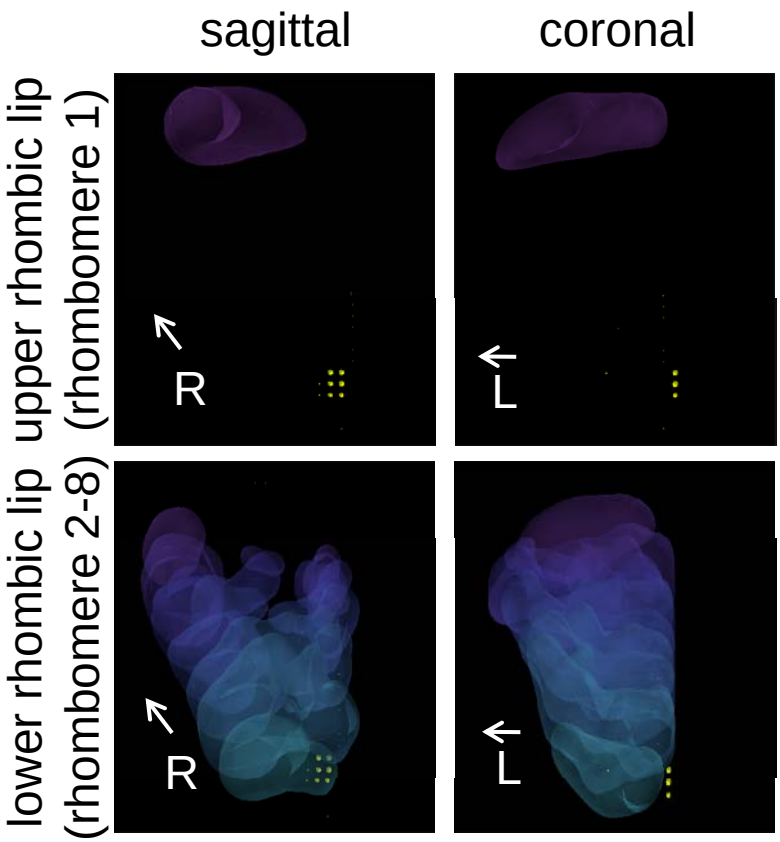
WNT-subgroup gene: *Fzd6*, Frizzled 6 (E11.5)

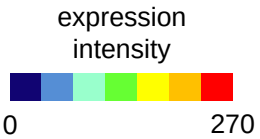
coronal section



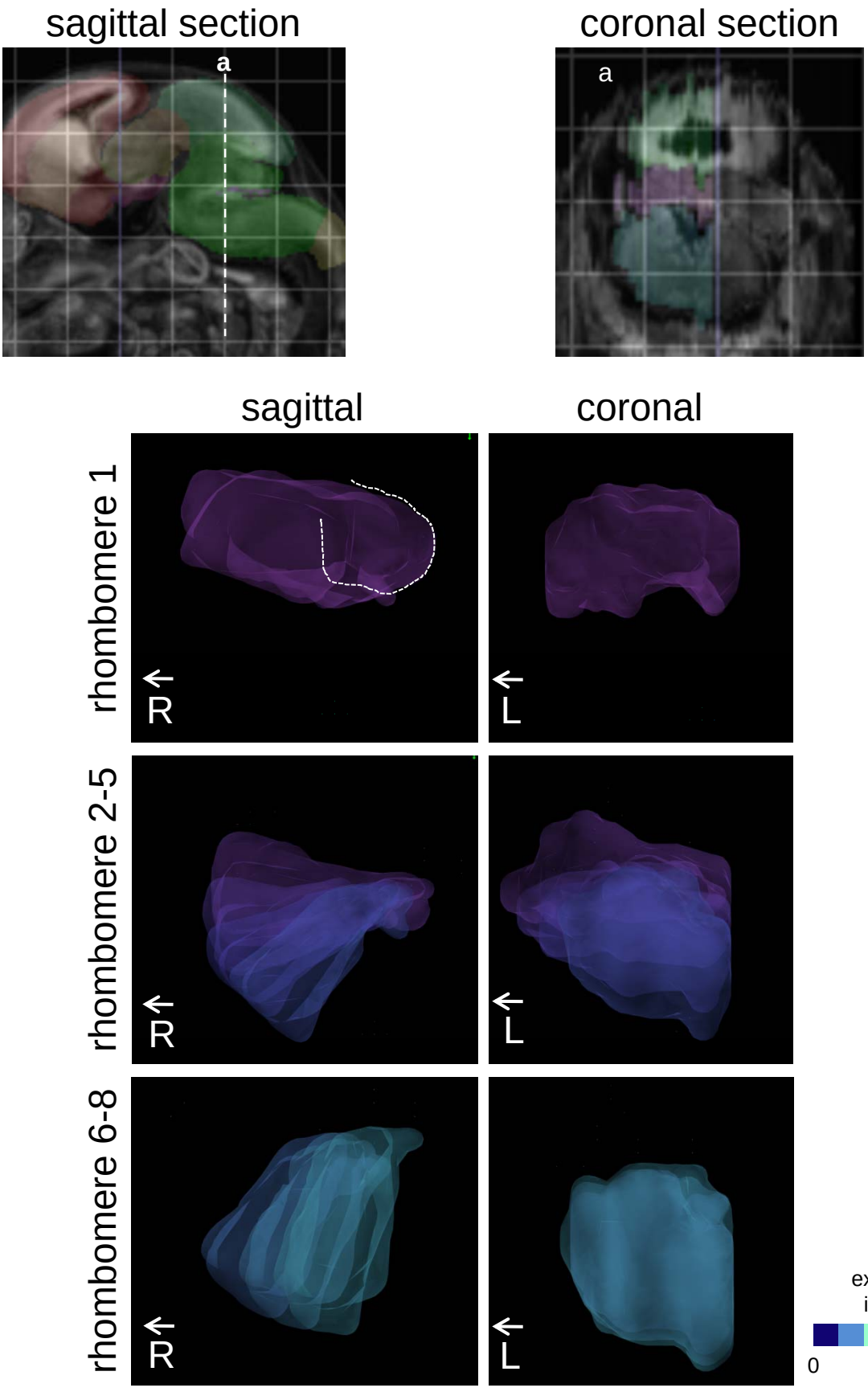
sagittal section





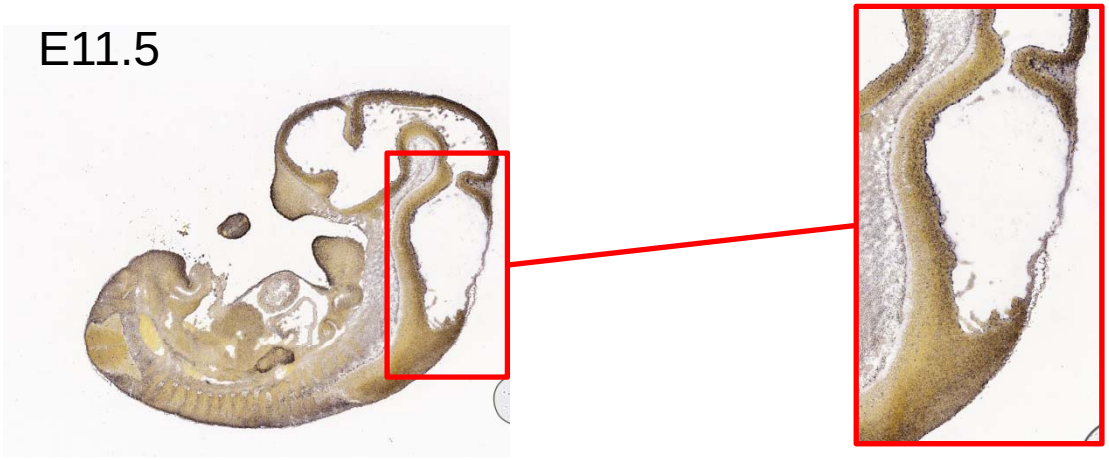


WNT-subgroup gene: *Fzd6*, Frizzled 6 (E15.5)

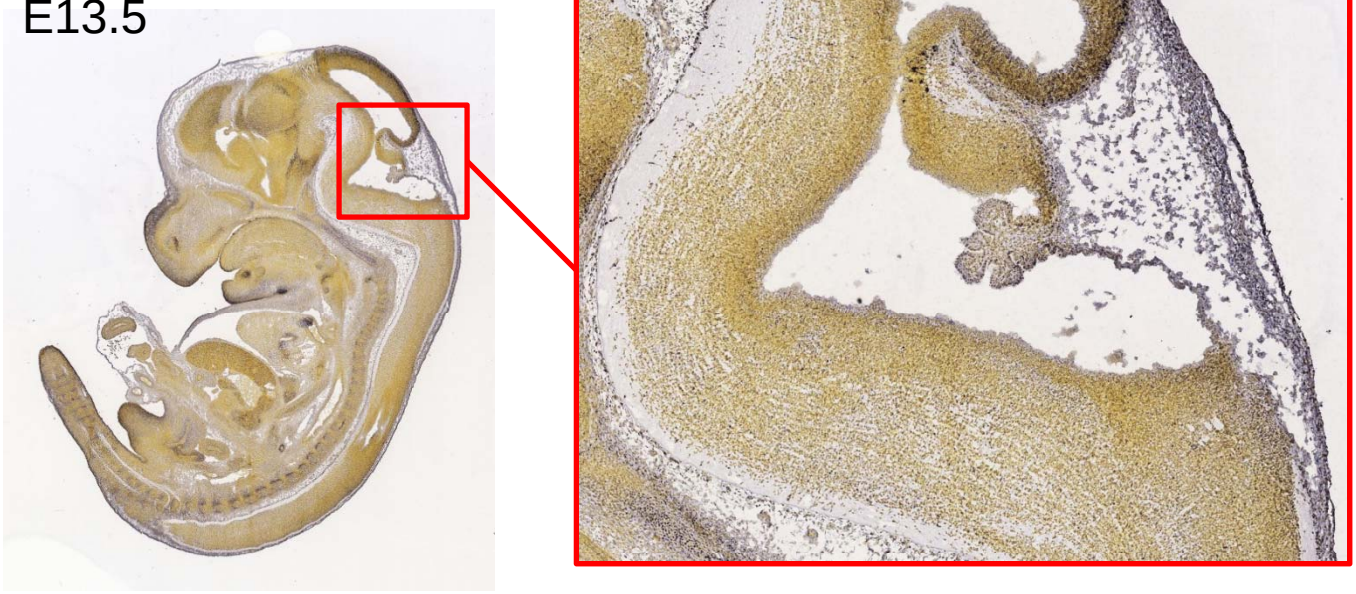


WNT-subgroup gene: *Lef1*, Lymphoid enhancer binding 1 *(in situ)*

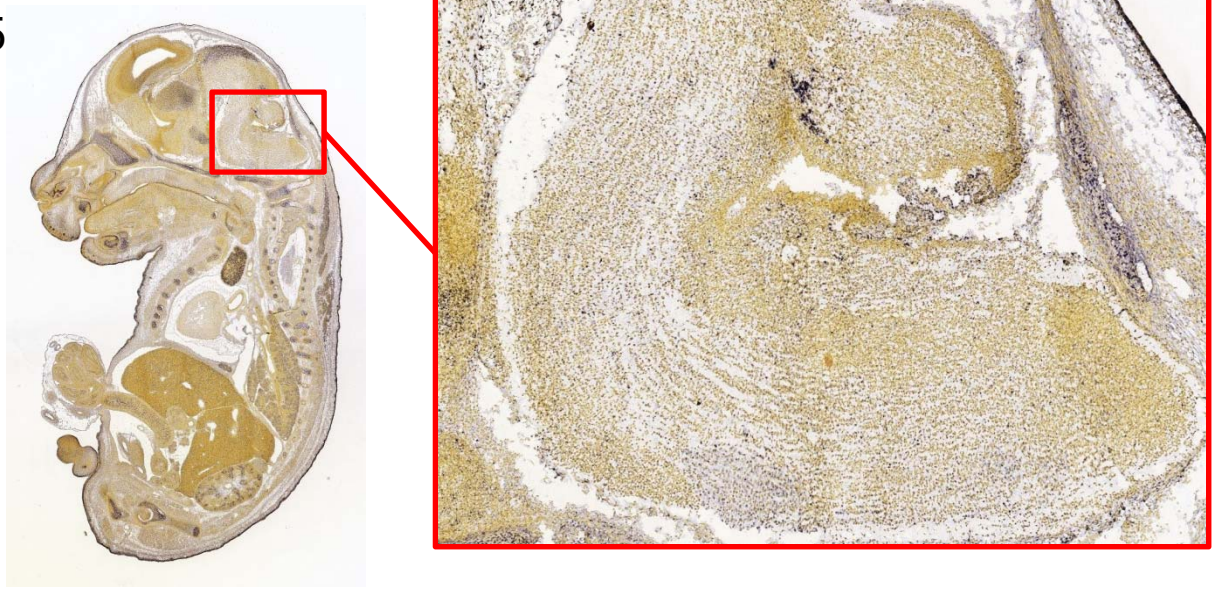
E11.5



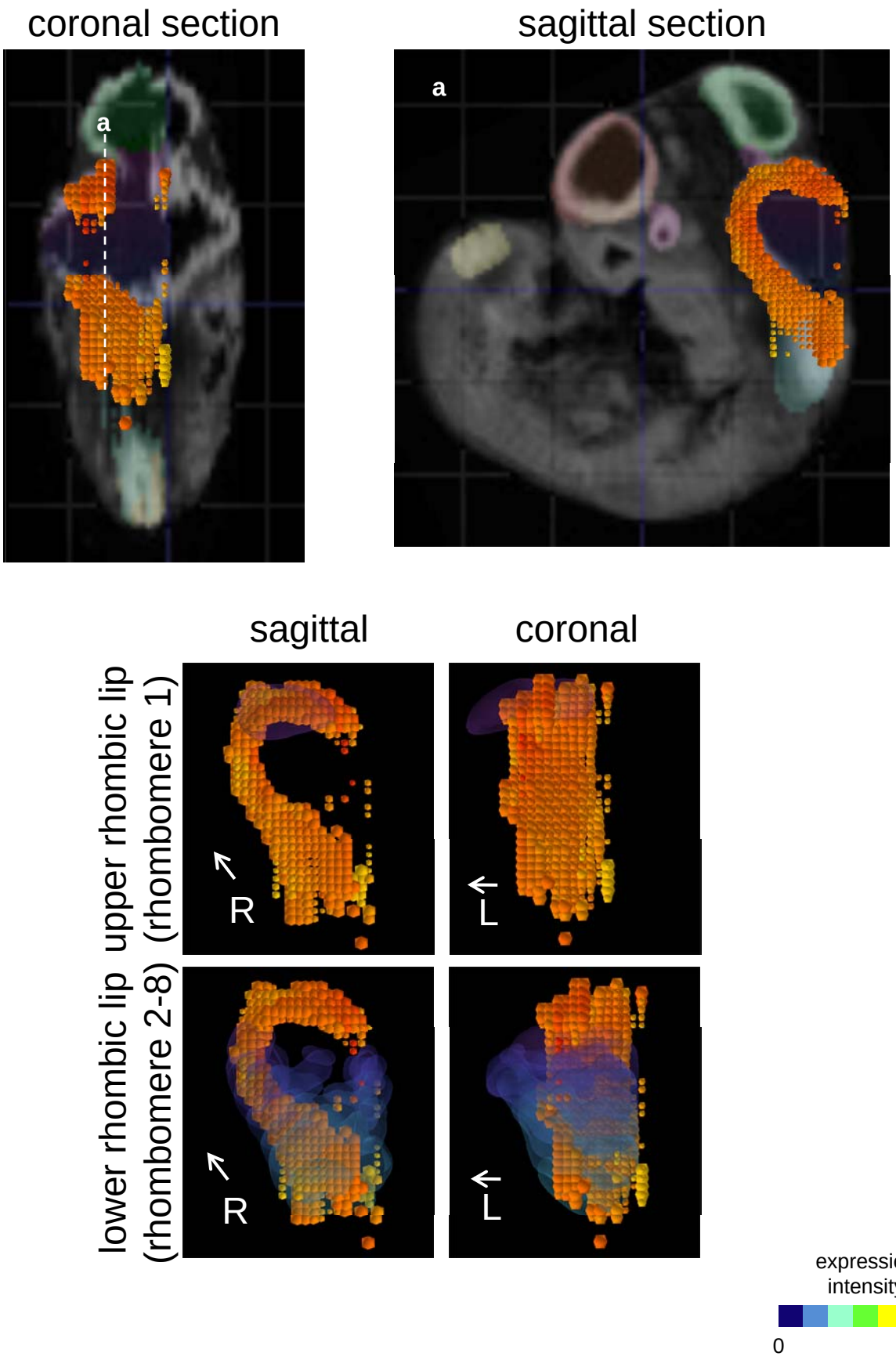
E13.5



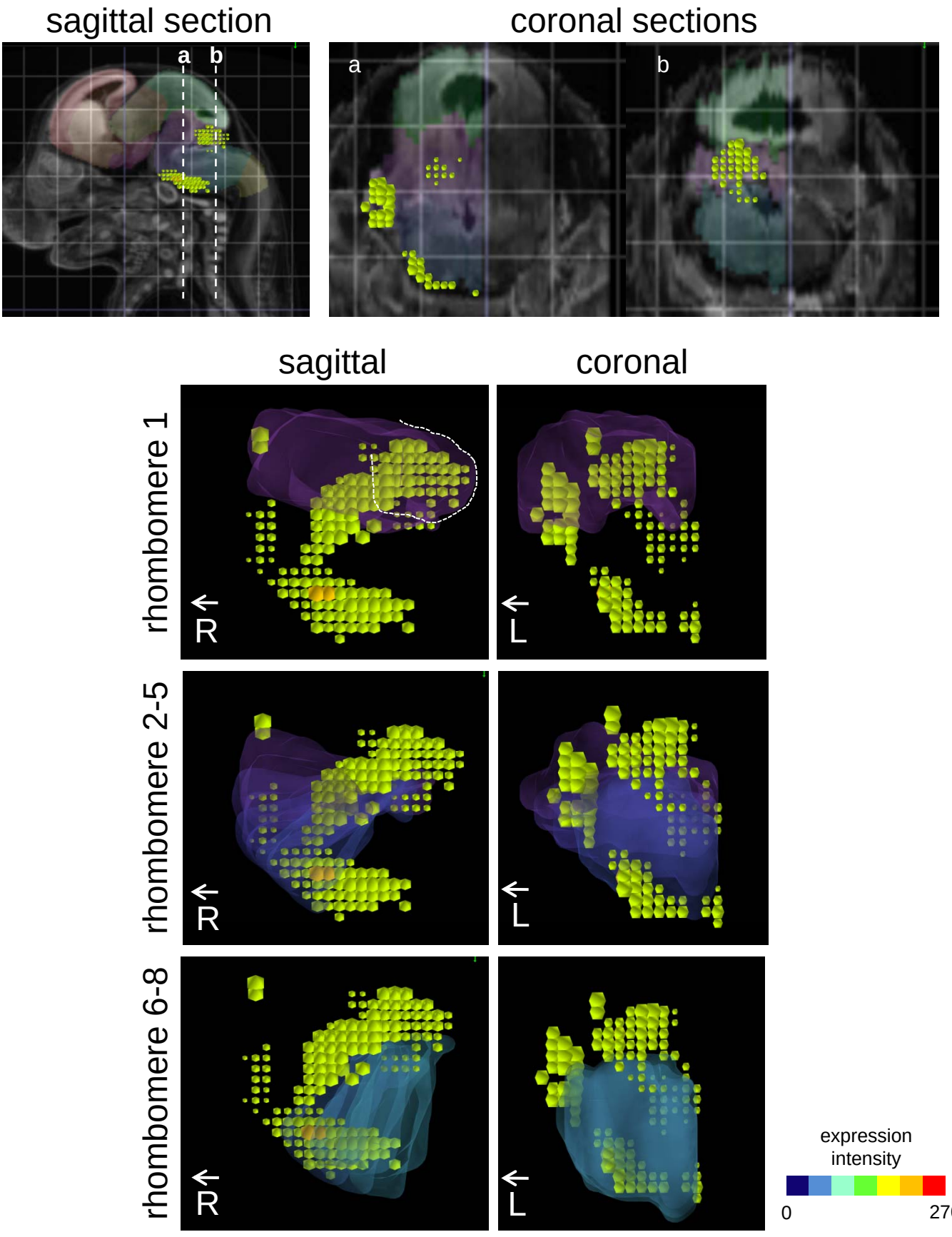
E15.5



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

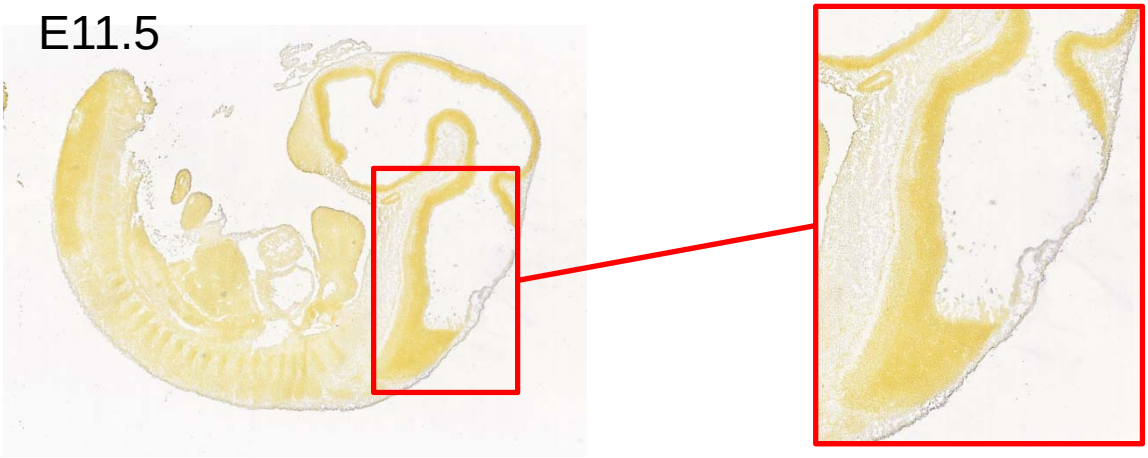


WNT-subgroup gene: *Lef1*, Lymphoid enhancer binding 1 (E15.5)



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

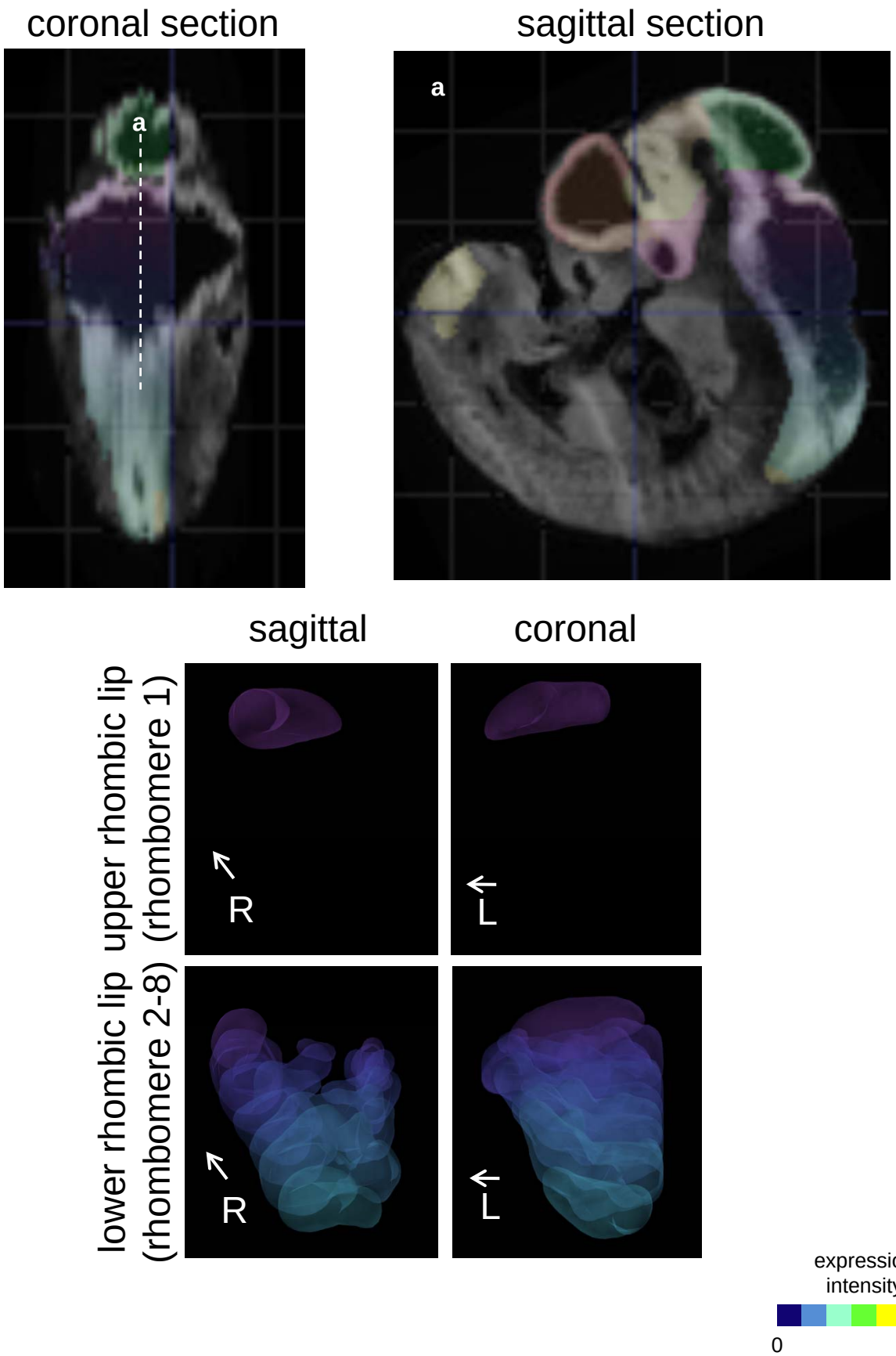
E11.5



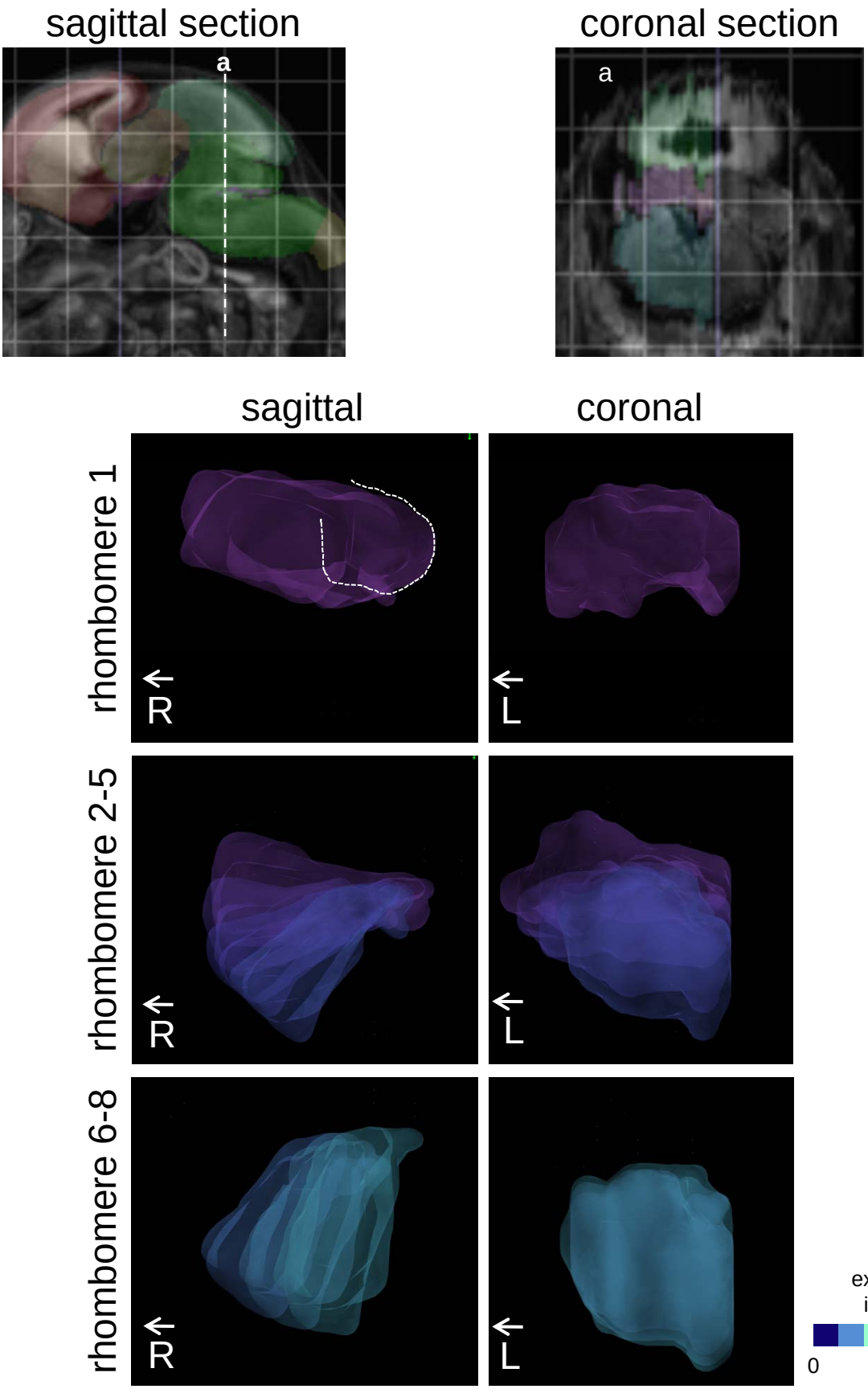
E13.5

E15.5

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

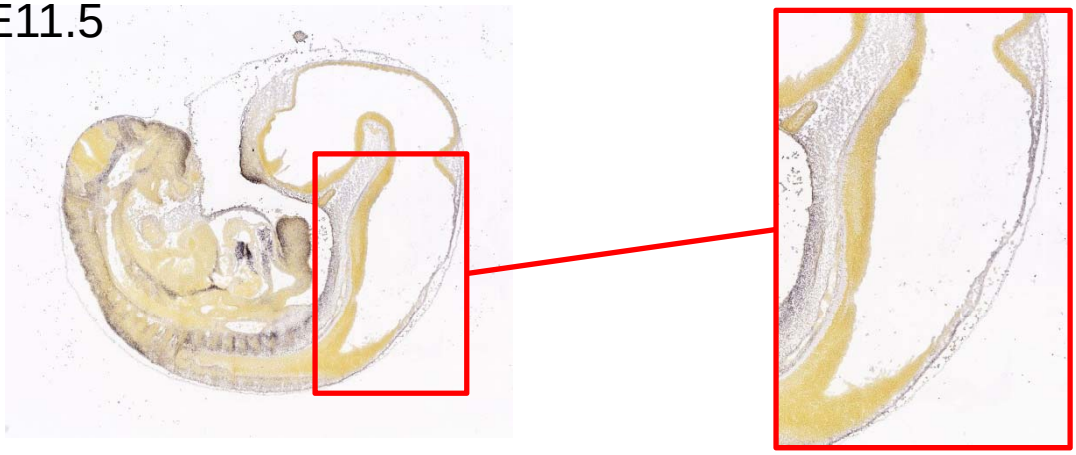


WNT-subgroup gene: *Galr1*, Galanin receptor (E15.5)

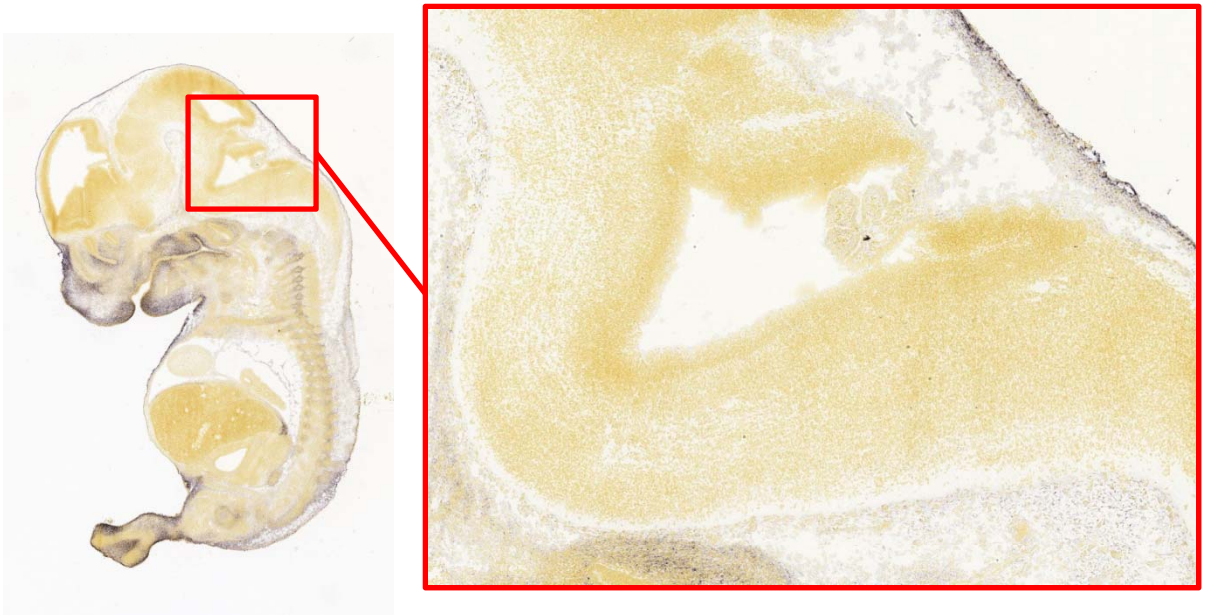


WNT-subgroup gene: *Twist1*, Twist homolog 1 (*in situ*)

E11.5



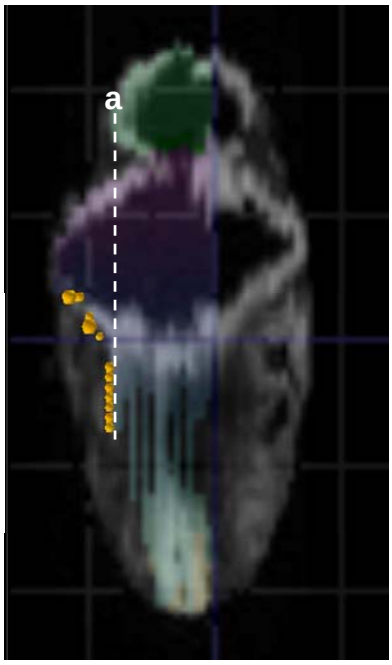
E13.5



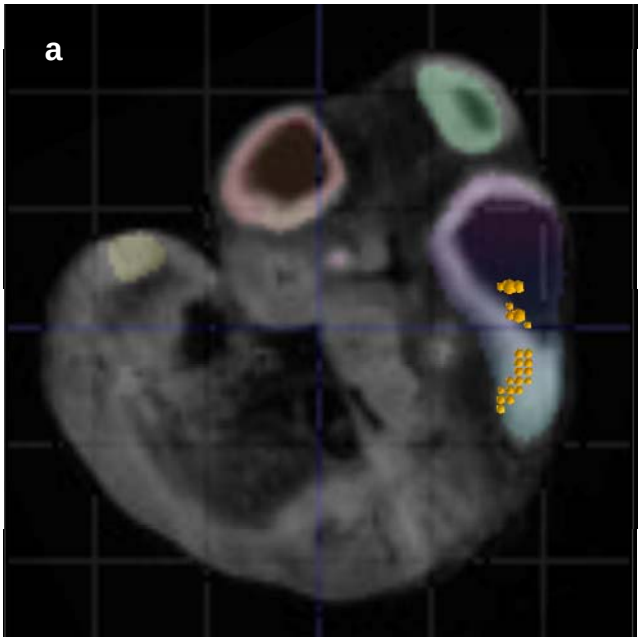
E15.5

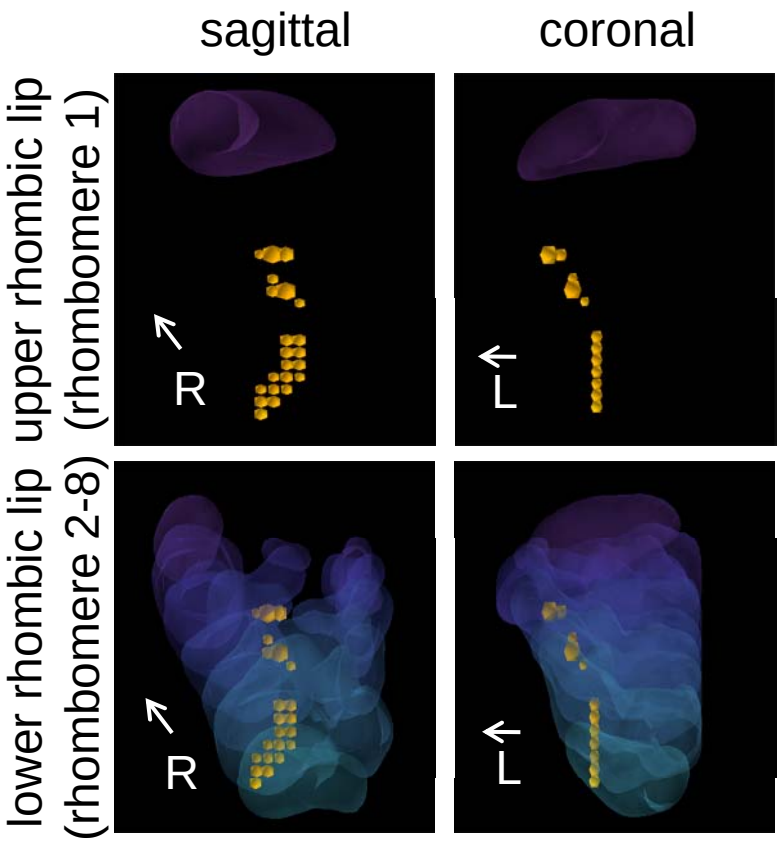
WNT-subgroup gene: *Twist1*, Twist homolog 1 (E11.5)

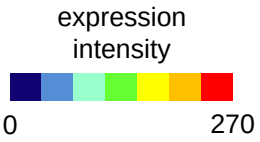
coronal section



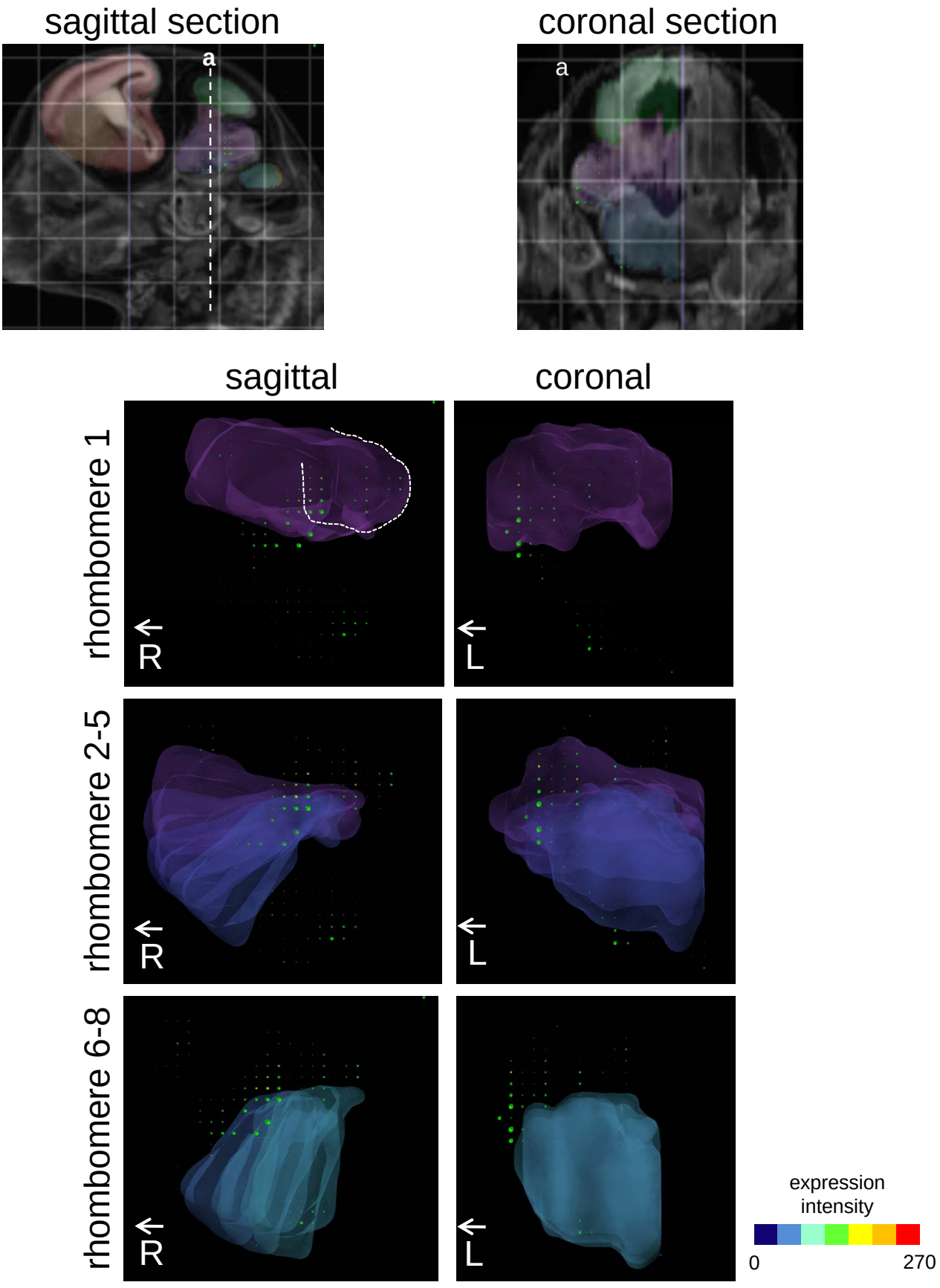
sagittal section





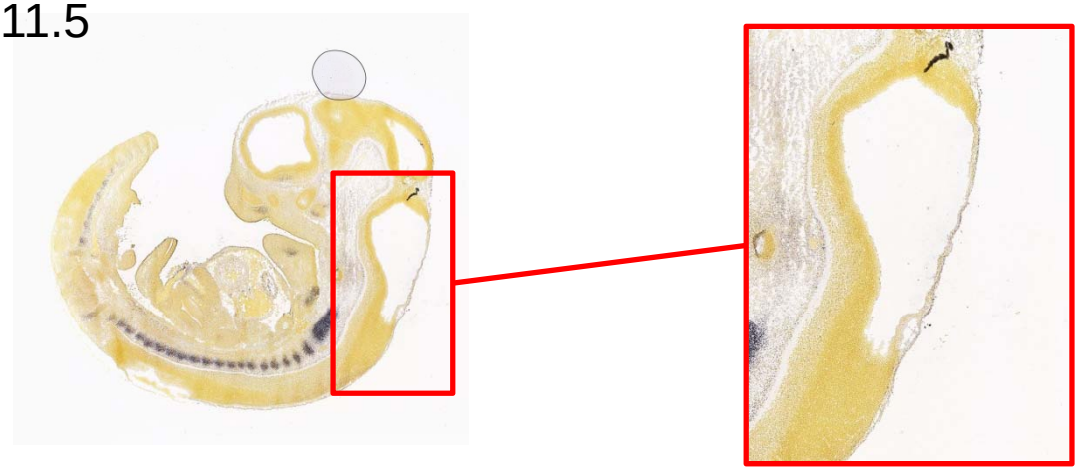


WNT-subgroup gene: *Twist1*, Twist homolog 1 (E15.5)



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

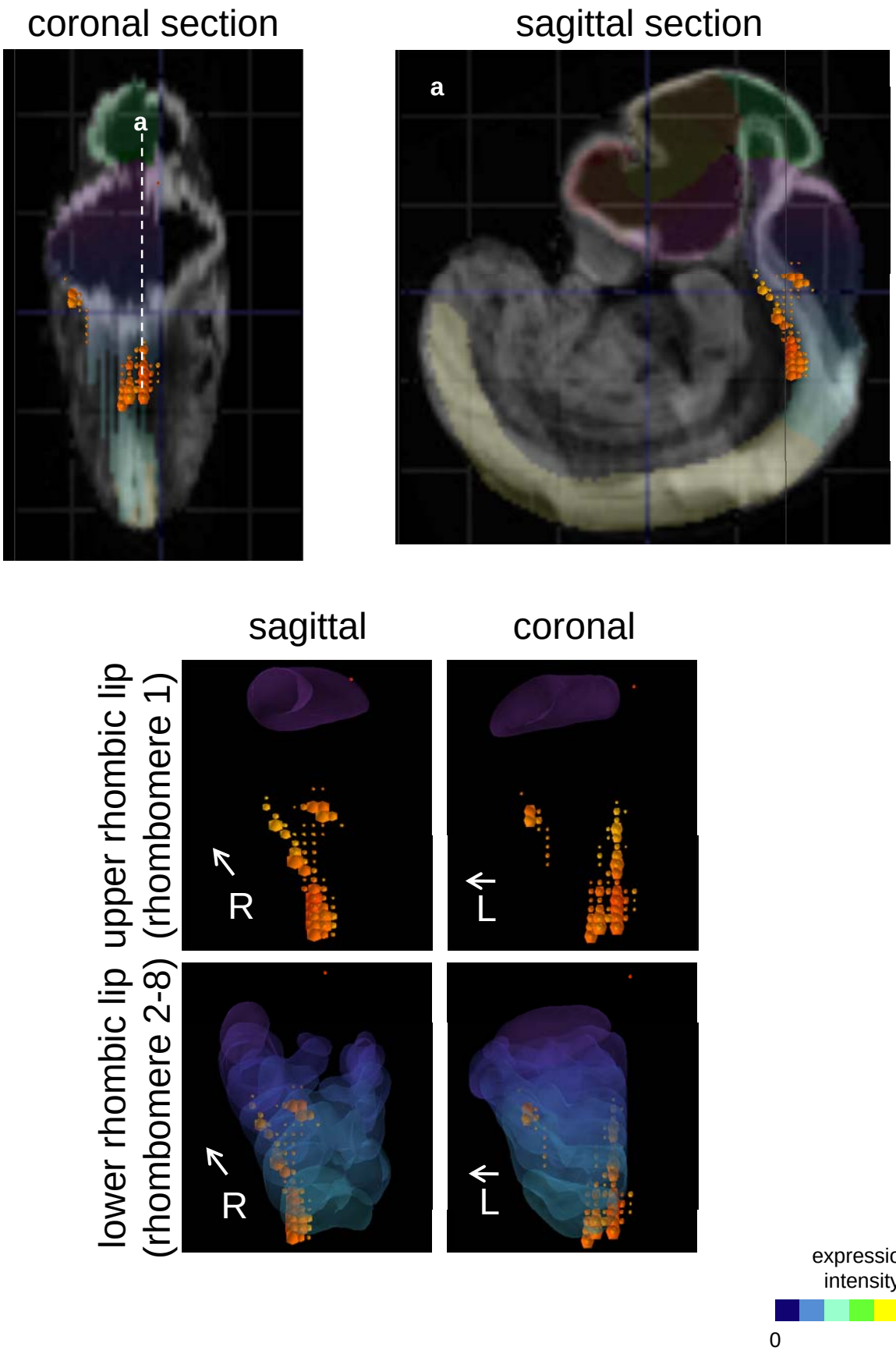
E11.5



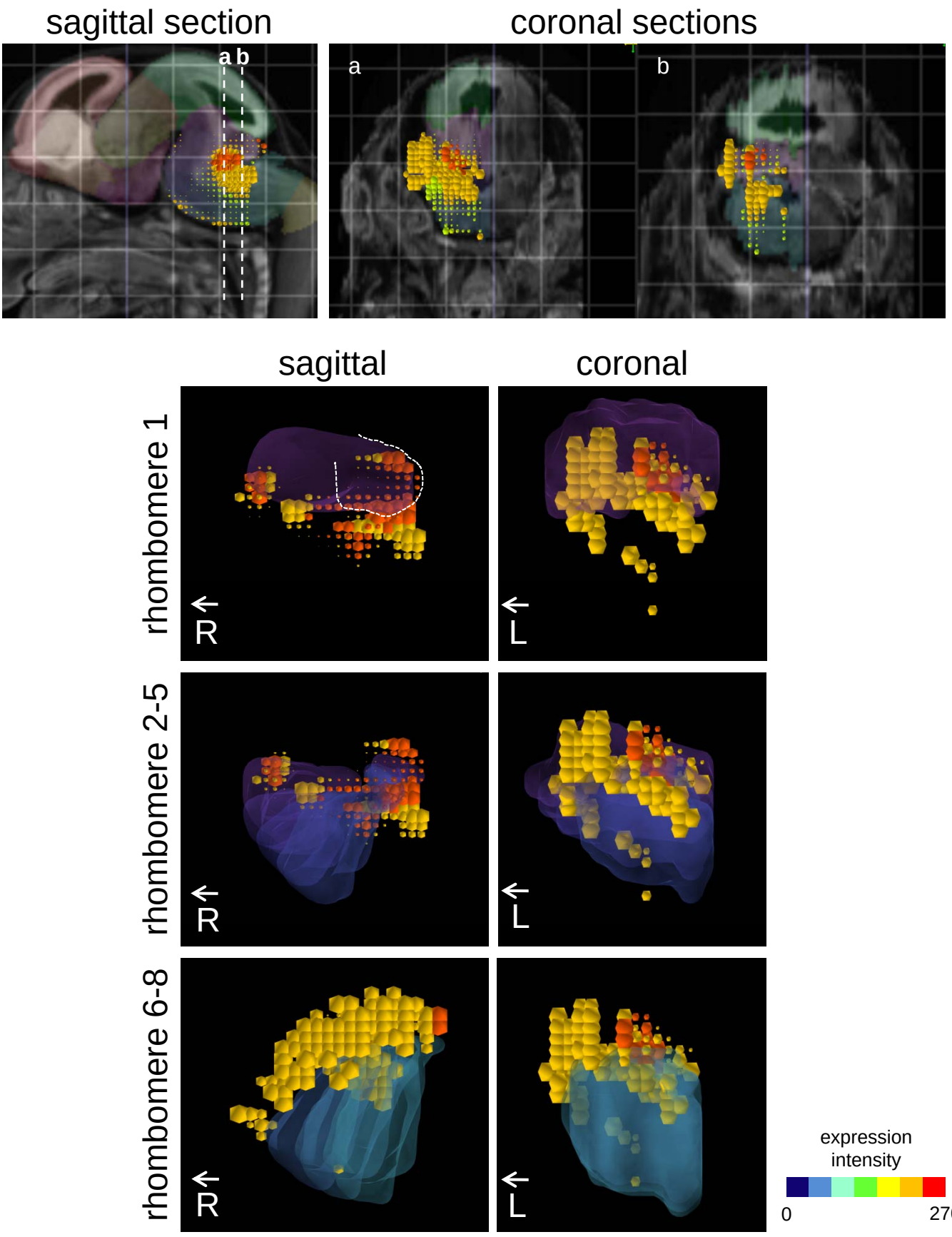
E13.5

E15.5

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

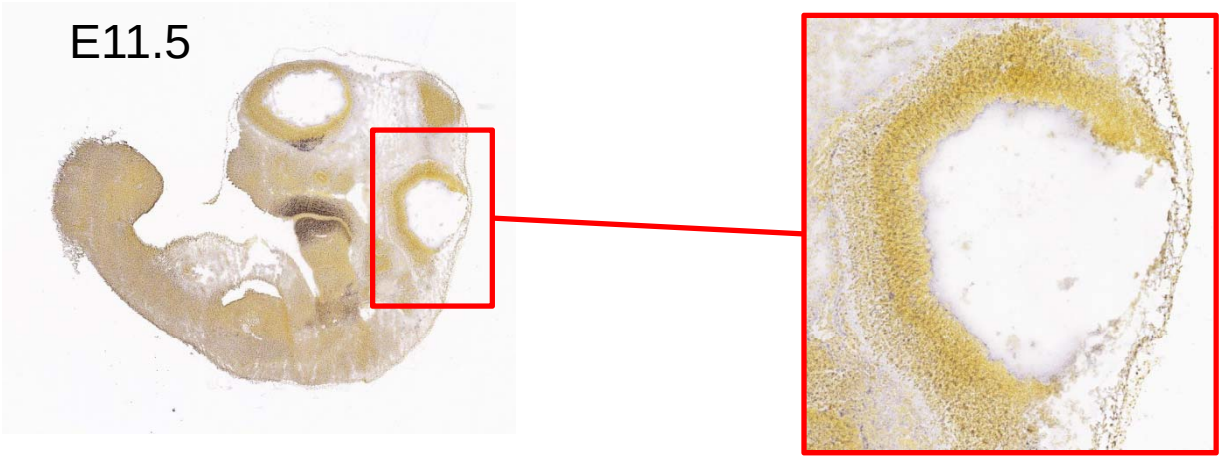


WNT-subgroup gene: *Col9a3*, Procollagen IXa3 (E15.5)

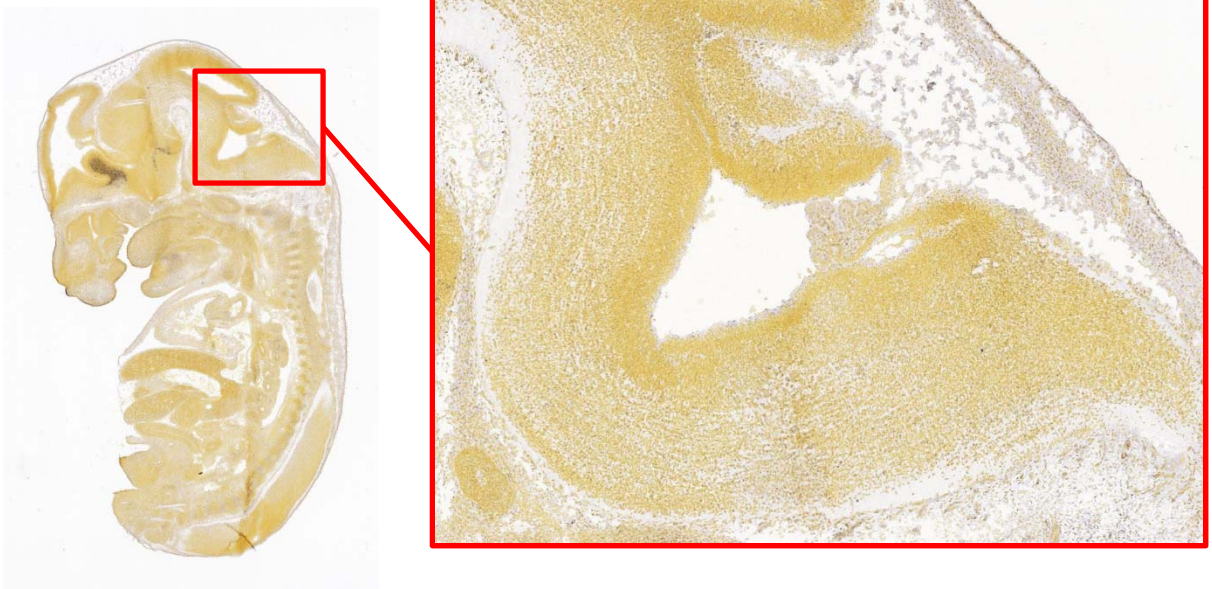


WNT-subgroup gene: *Lhx6*, Lim homeobox 6 (*in situ*)

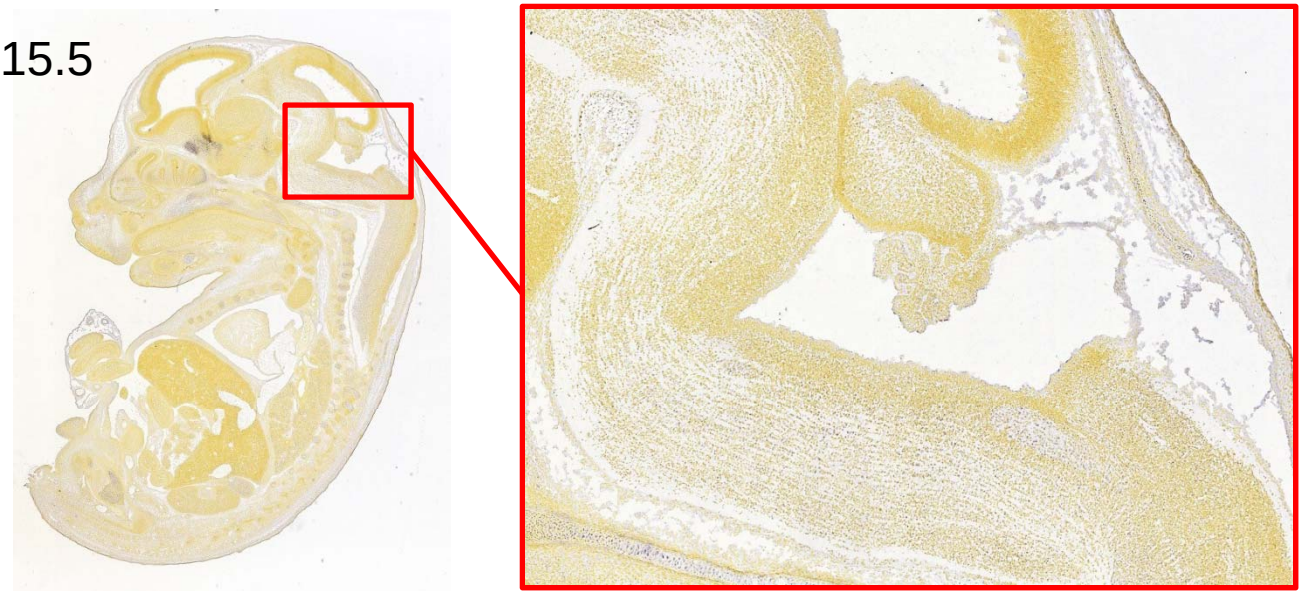
E11.5



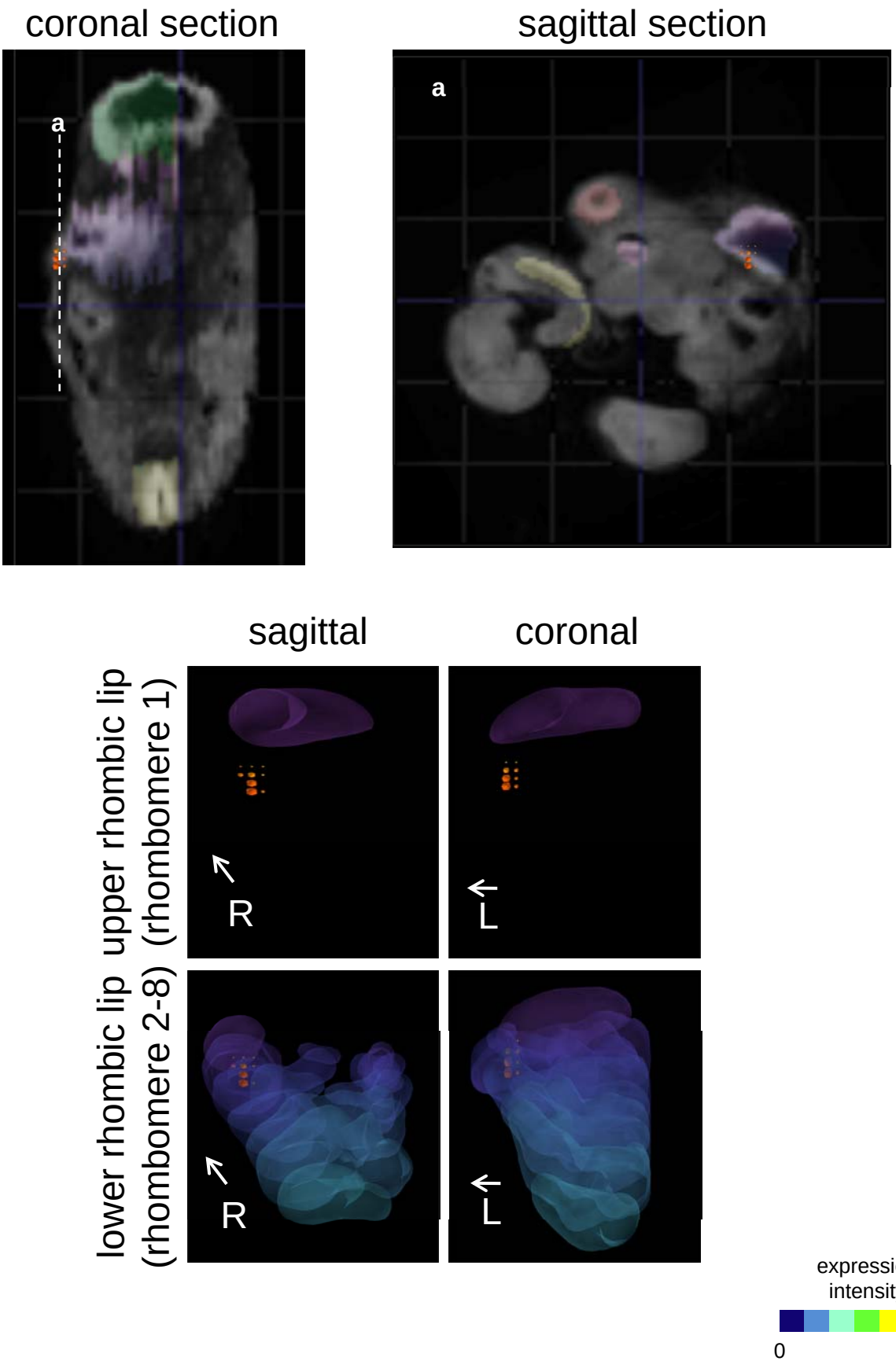
E13.5



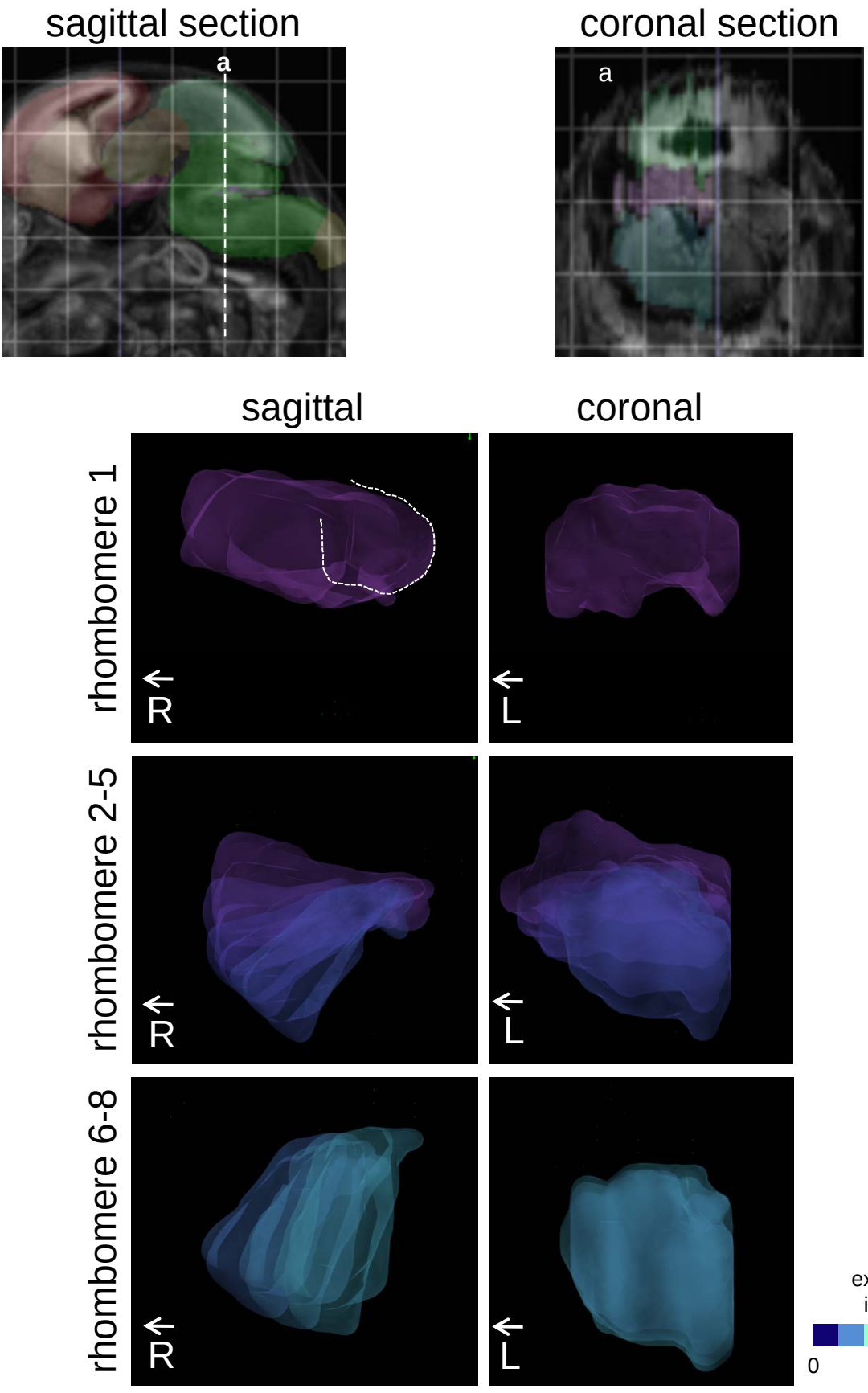
E15.5



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

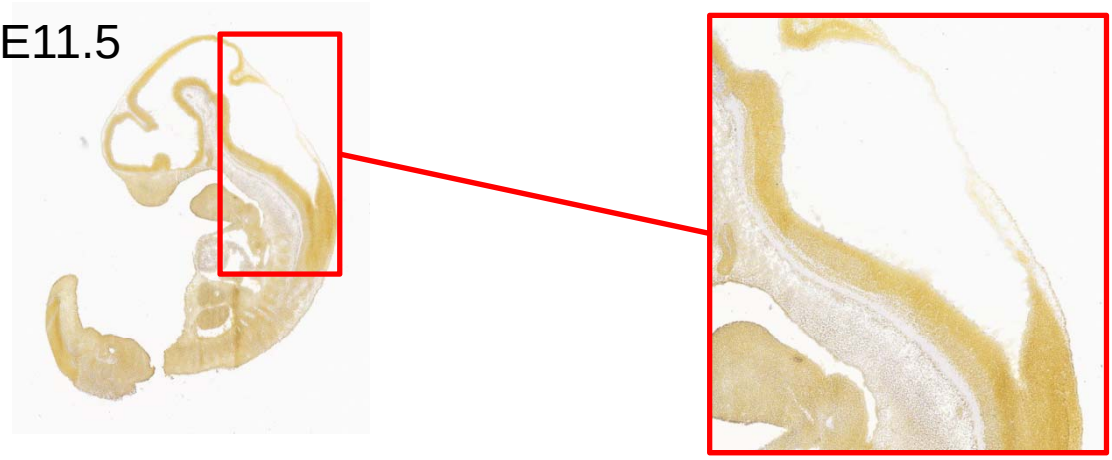


WNT-subgroup gene: *Lhx6*, Lim homeobox 6 (E15.5)

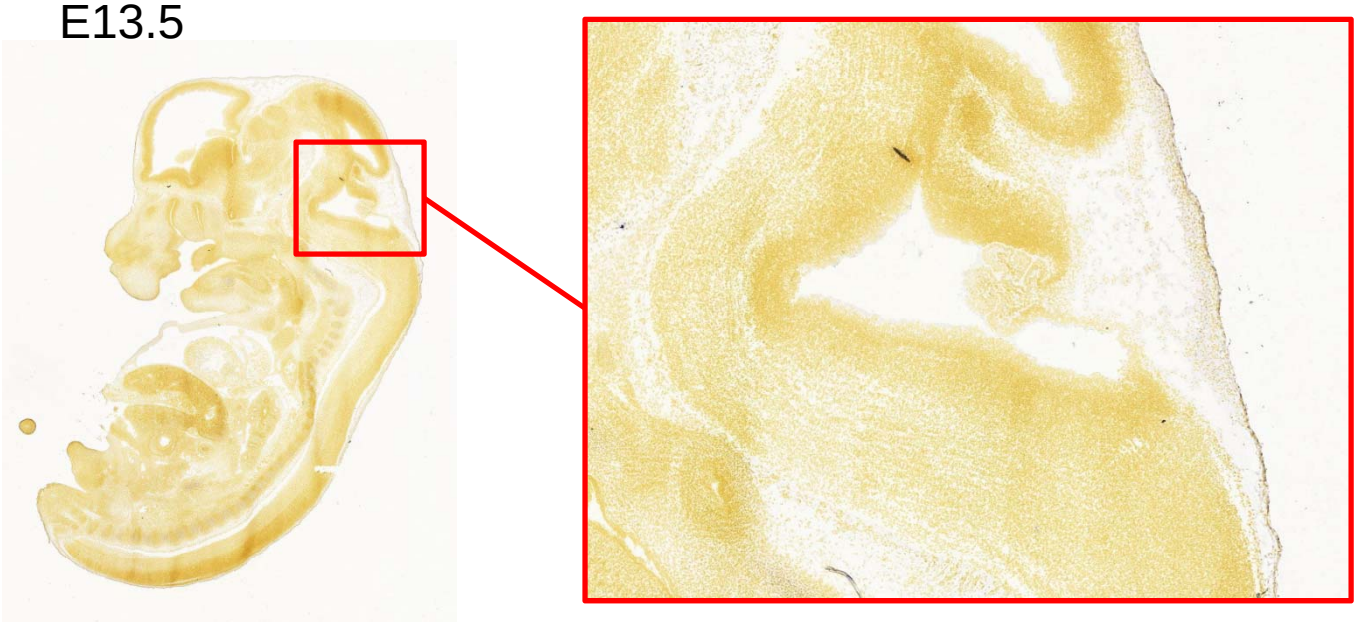


WNT-subgroup gene: *Tph1*, Tryptophan hydroxylase 1 (*in situ*)

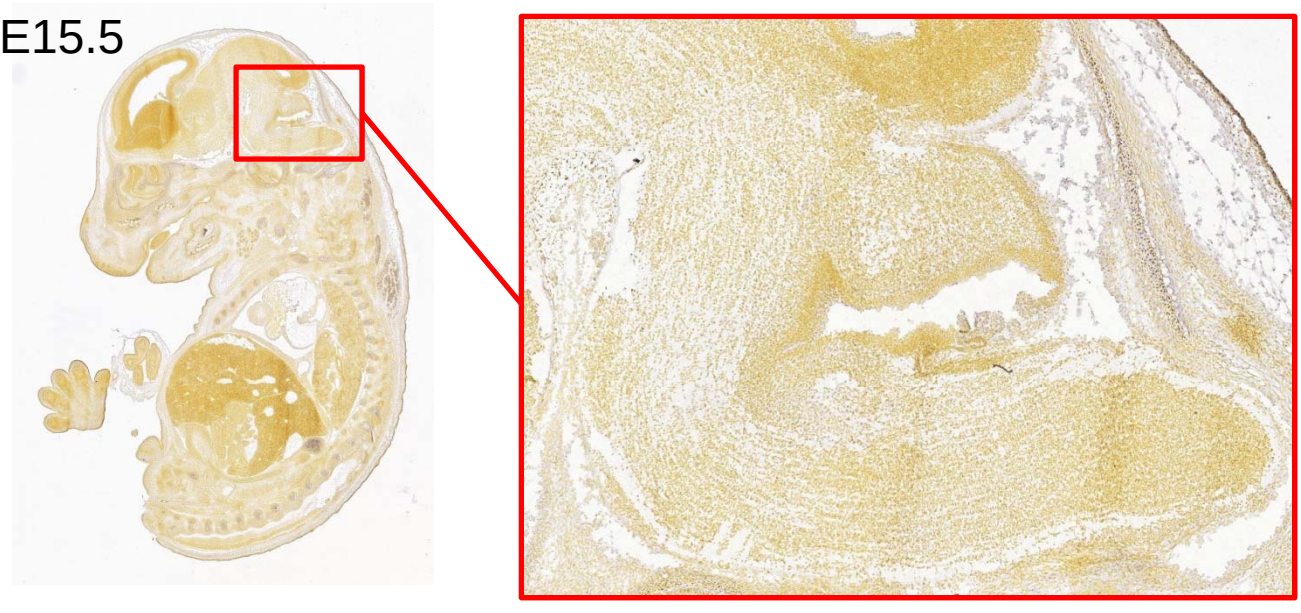
E11.5



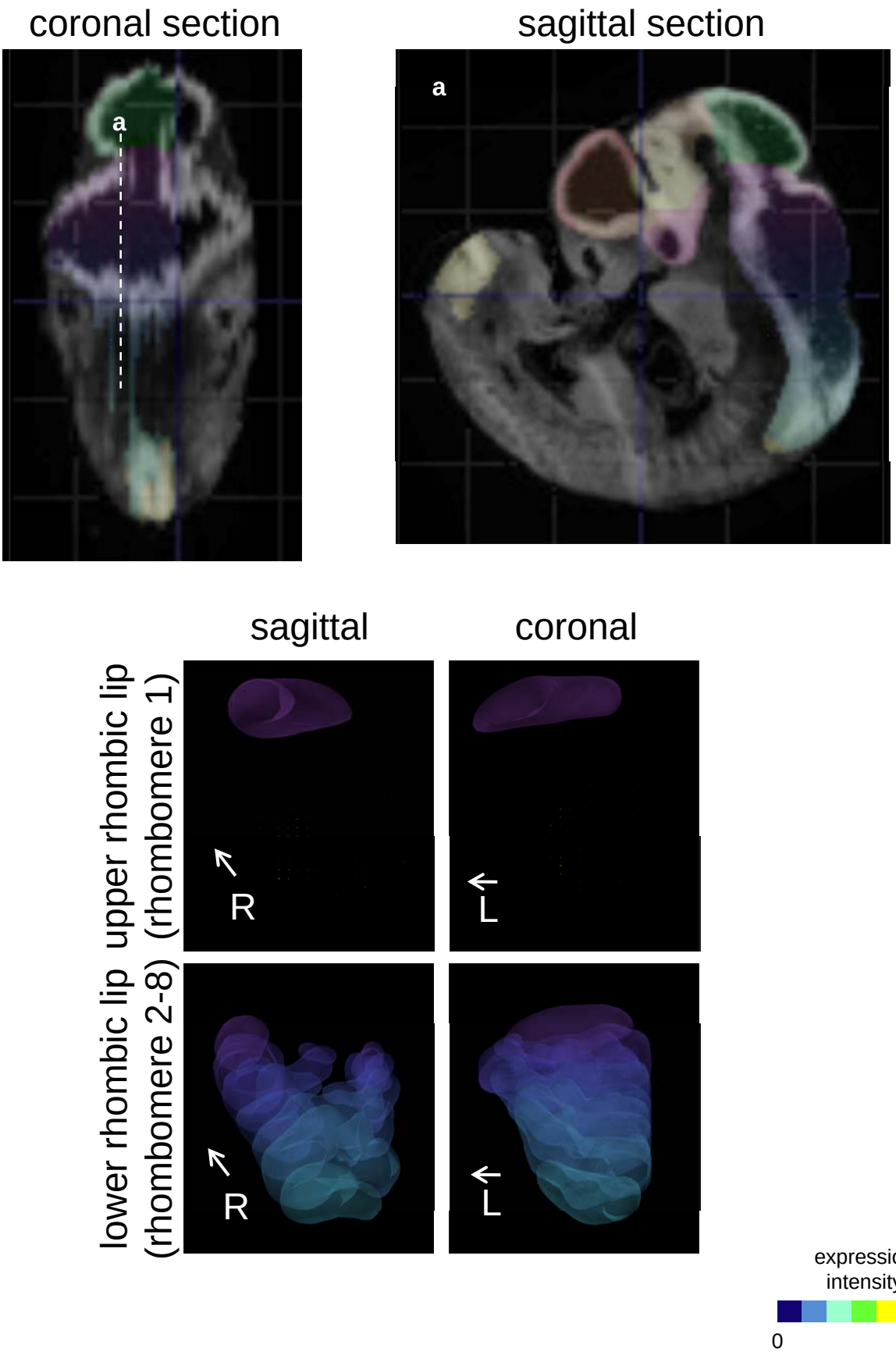
E13.5



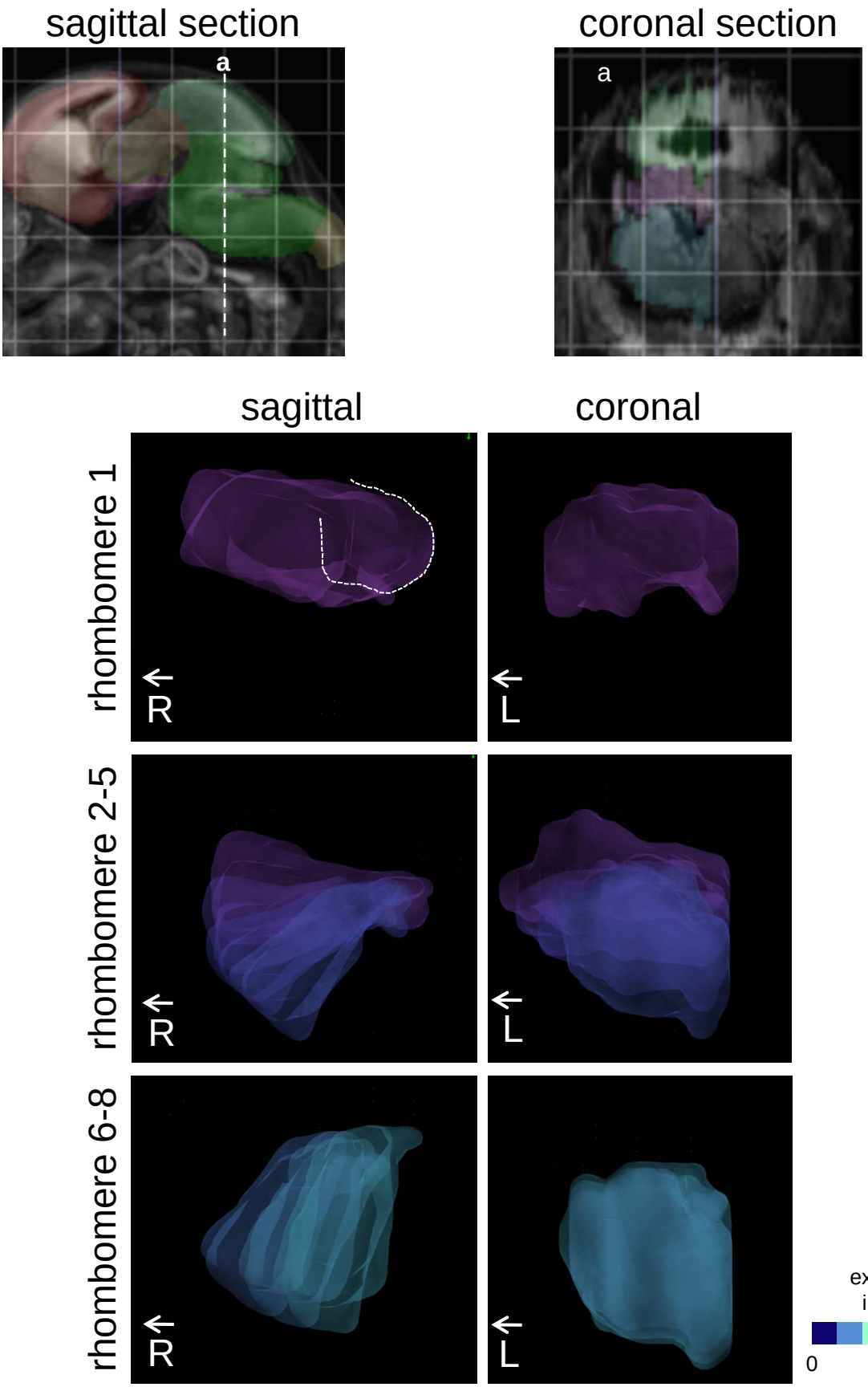
E15.5



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

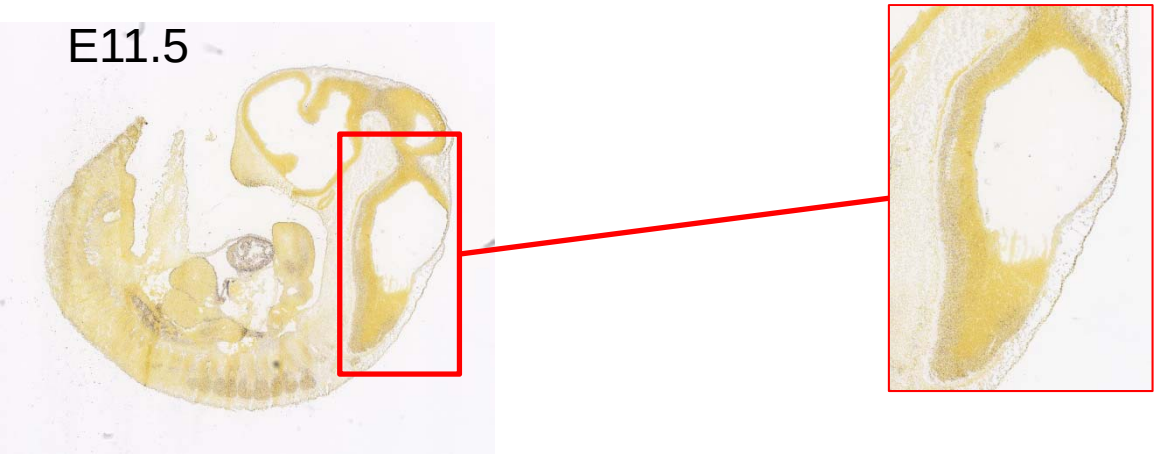


WNT-subgroup gene: *Tph1*, Tryptophan hydroxylase 1 (E15.5)

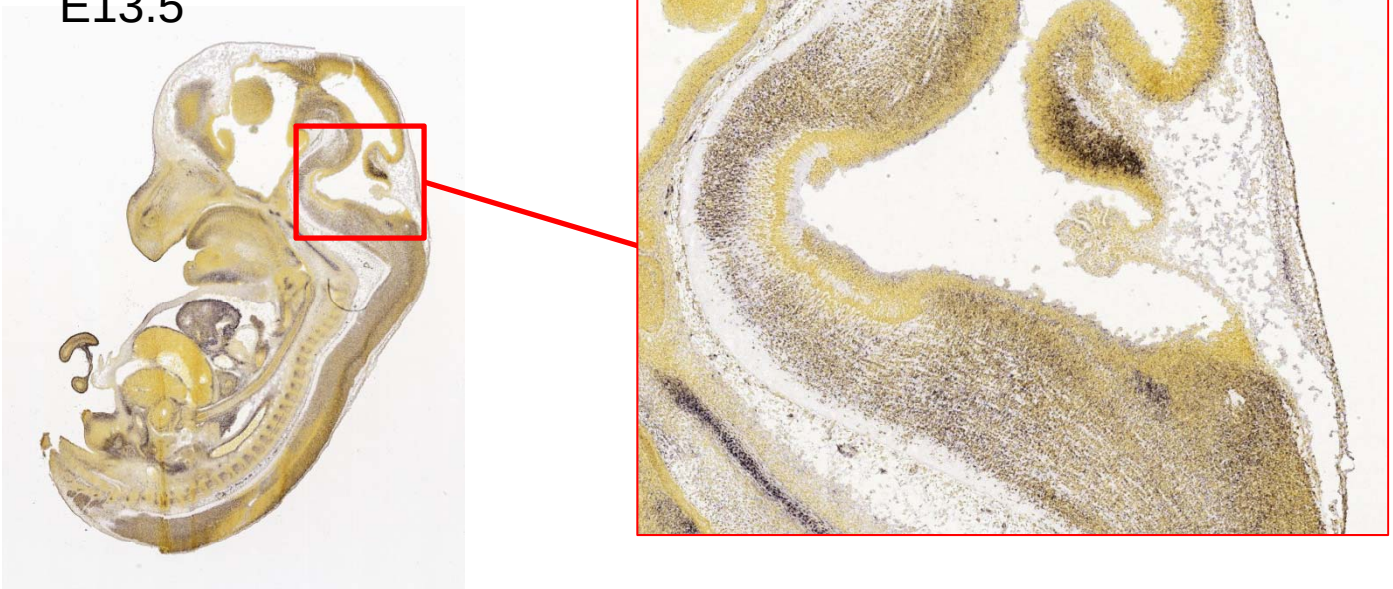


WNT-subgroup gene: *Lbh*, Limb-bud and heart (*in situ*)

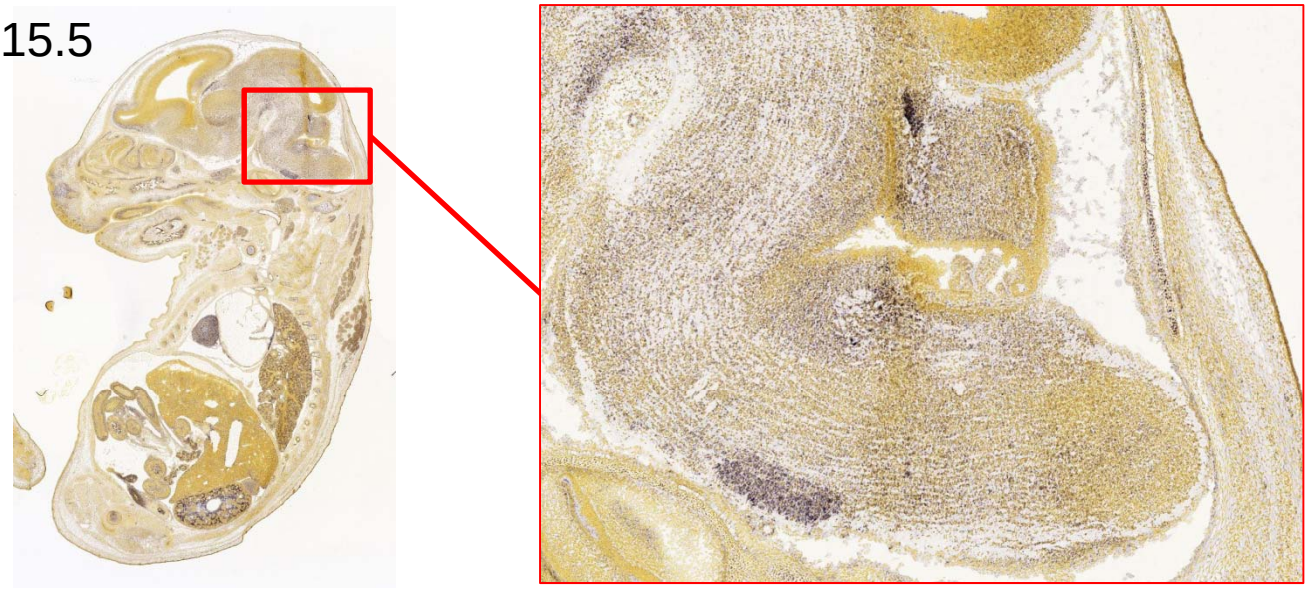
E11.5



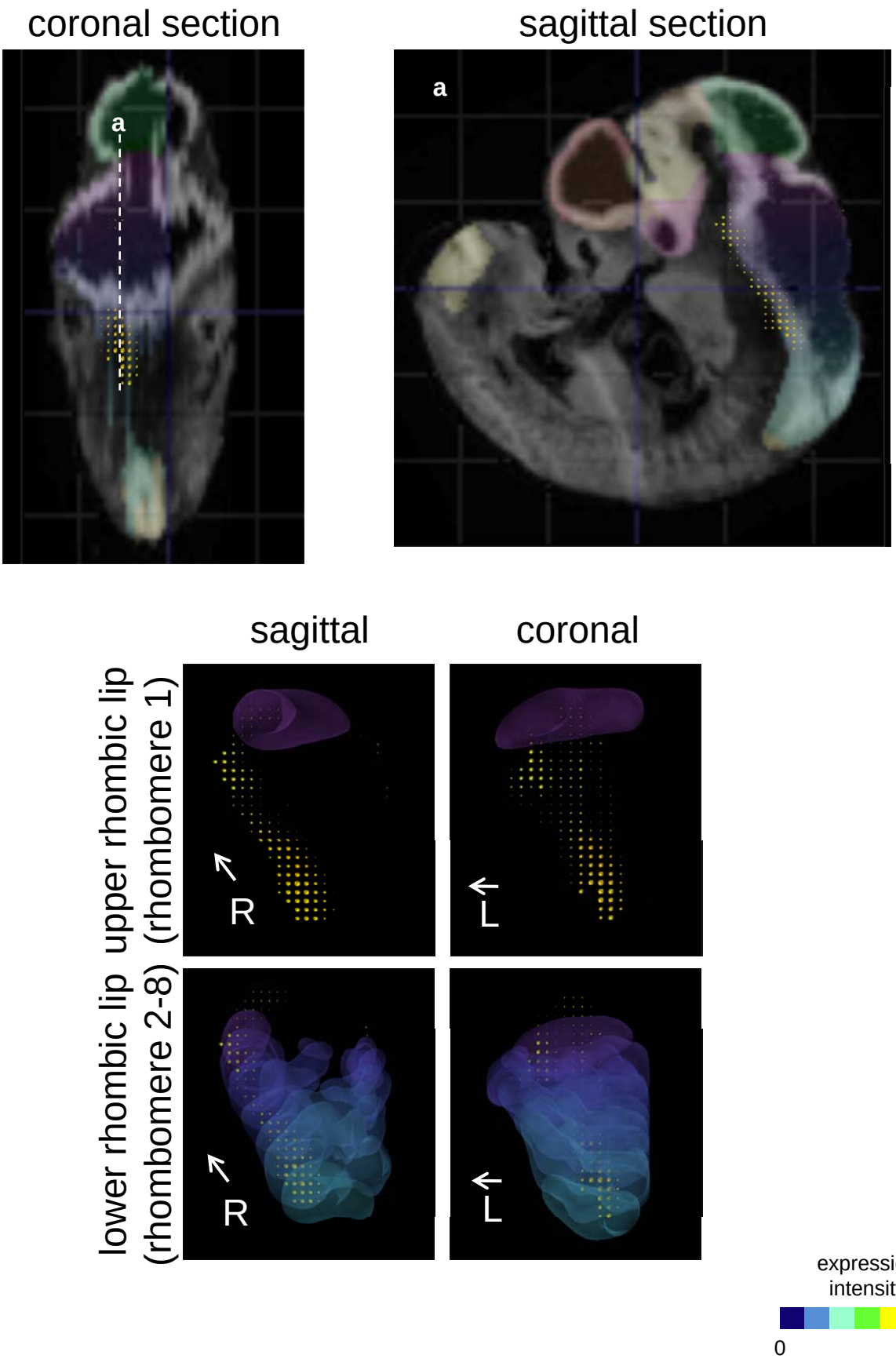
E13.5



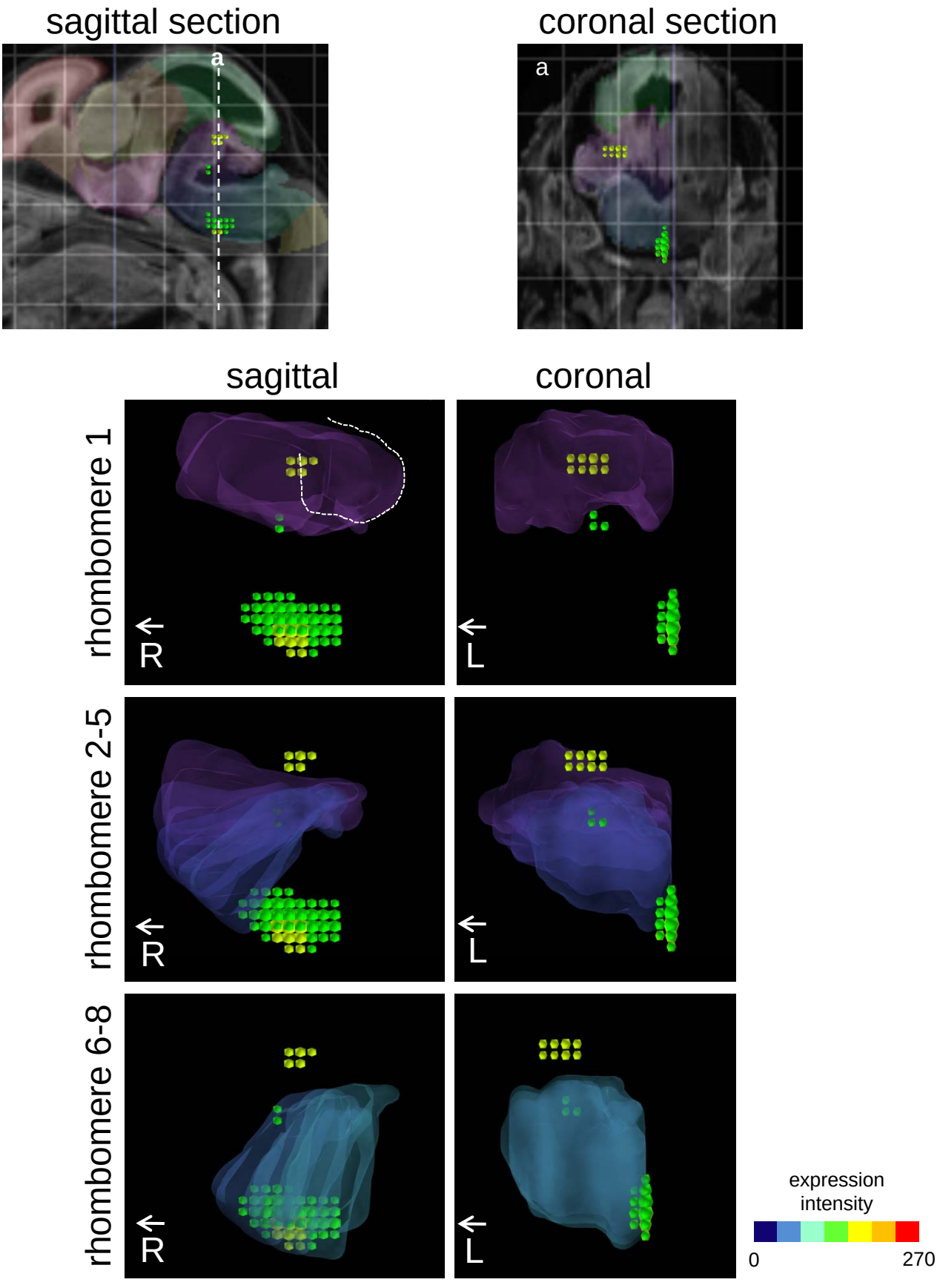
E15.5



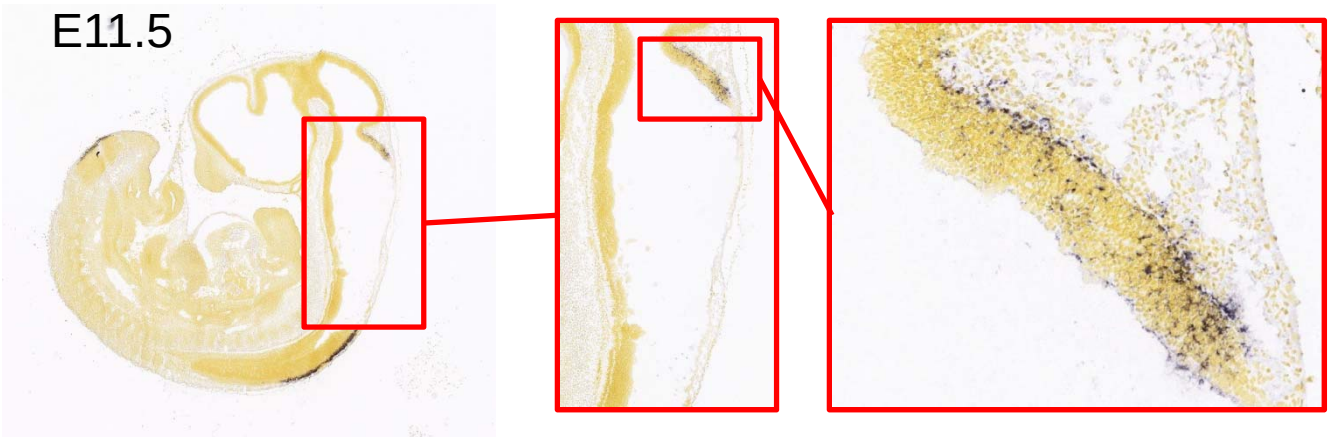
WNT-subgroup gene: *Lbh*, Limb-bud and heart (E11.5)



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

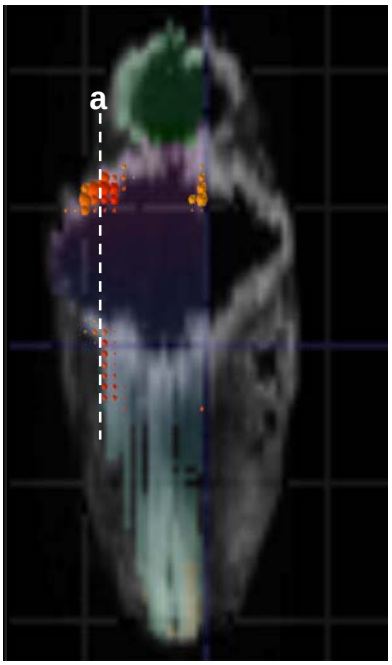


SHH-subgroup gene: *Atoh1*, Atonal (*in situ*)

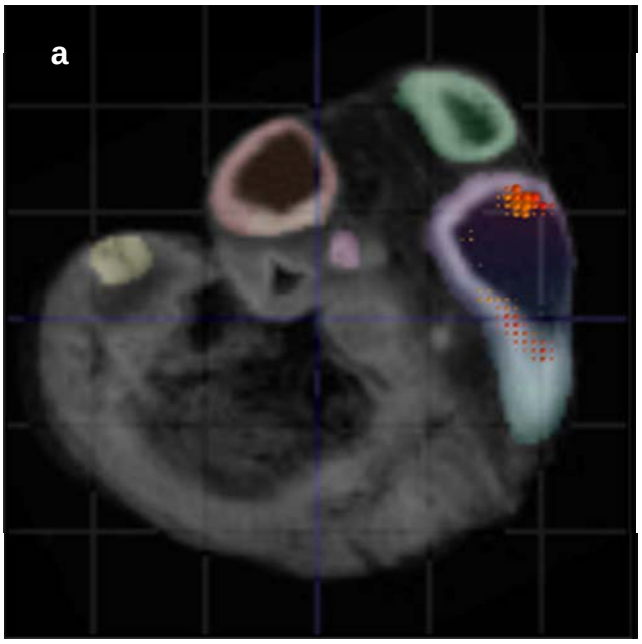


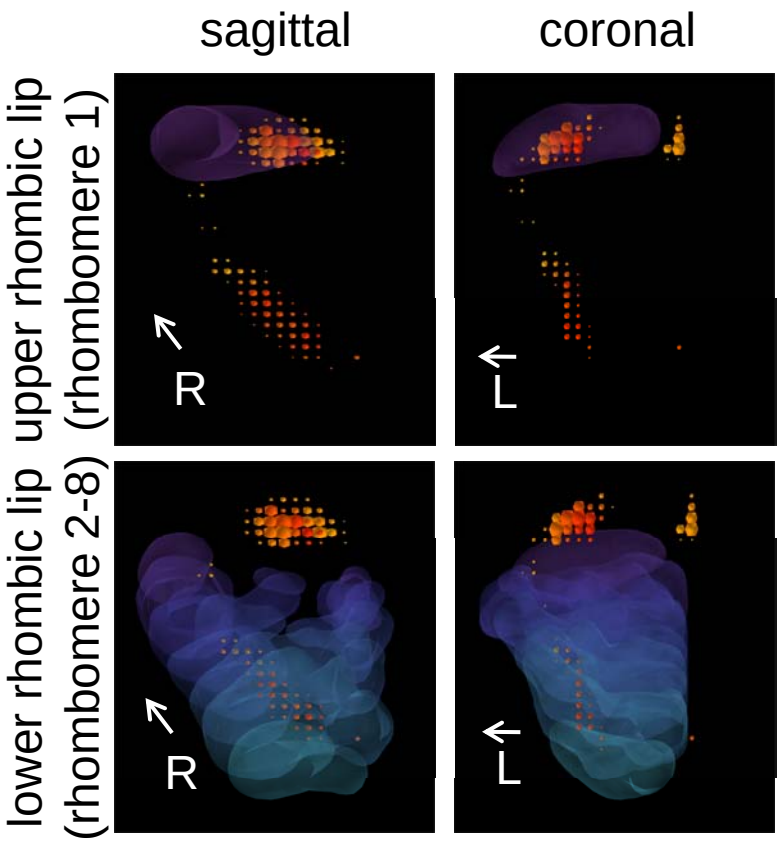
SHH-subgroup gene: *Atoh1*, Atonal (E11.5)

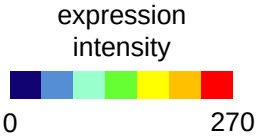
coronal section



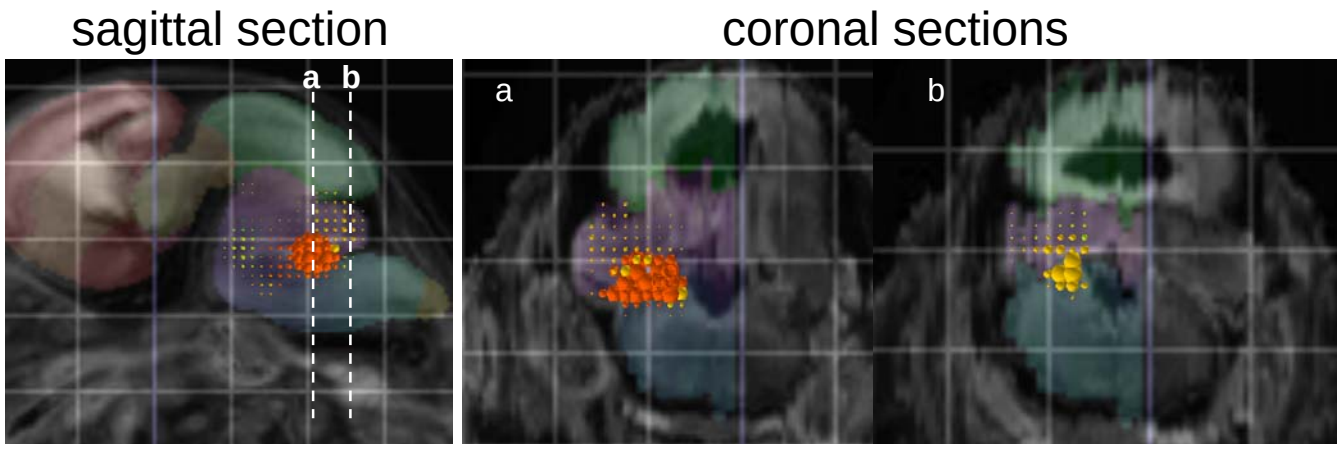
sagittal section

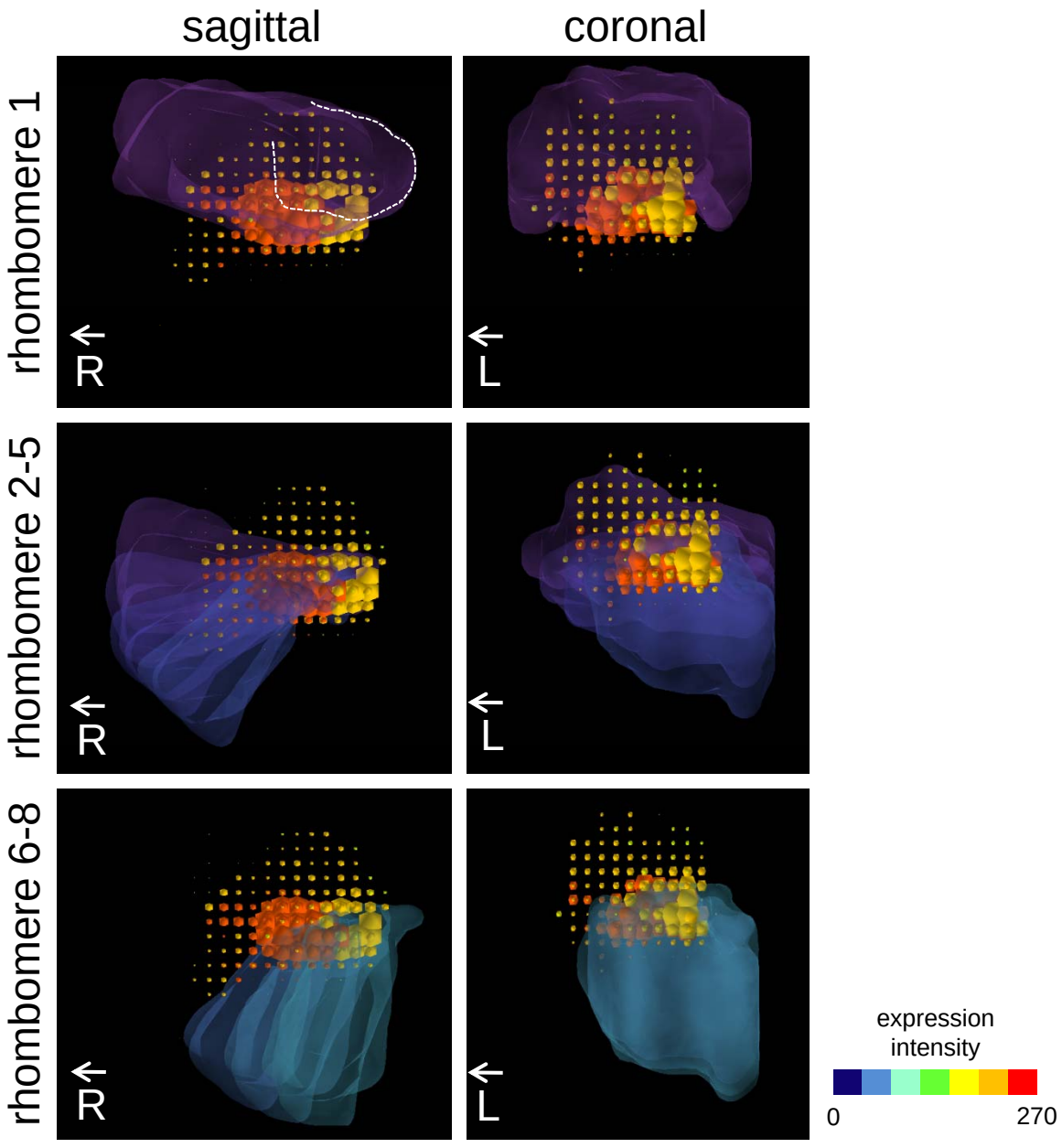




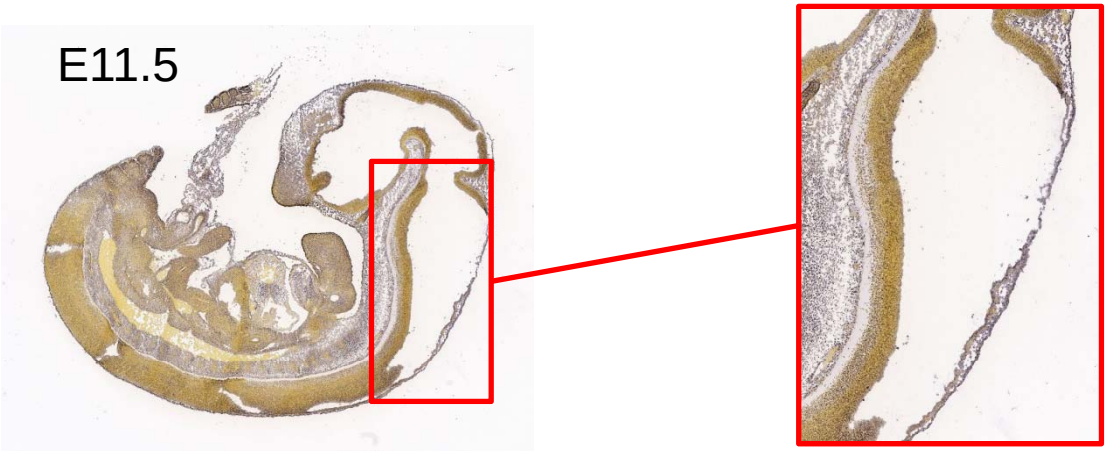


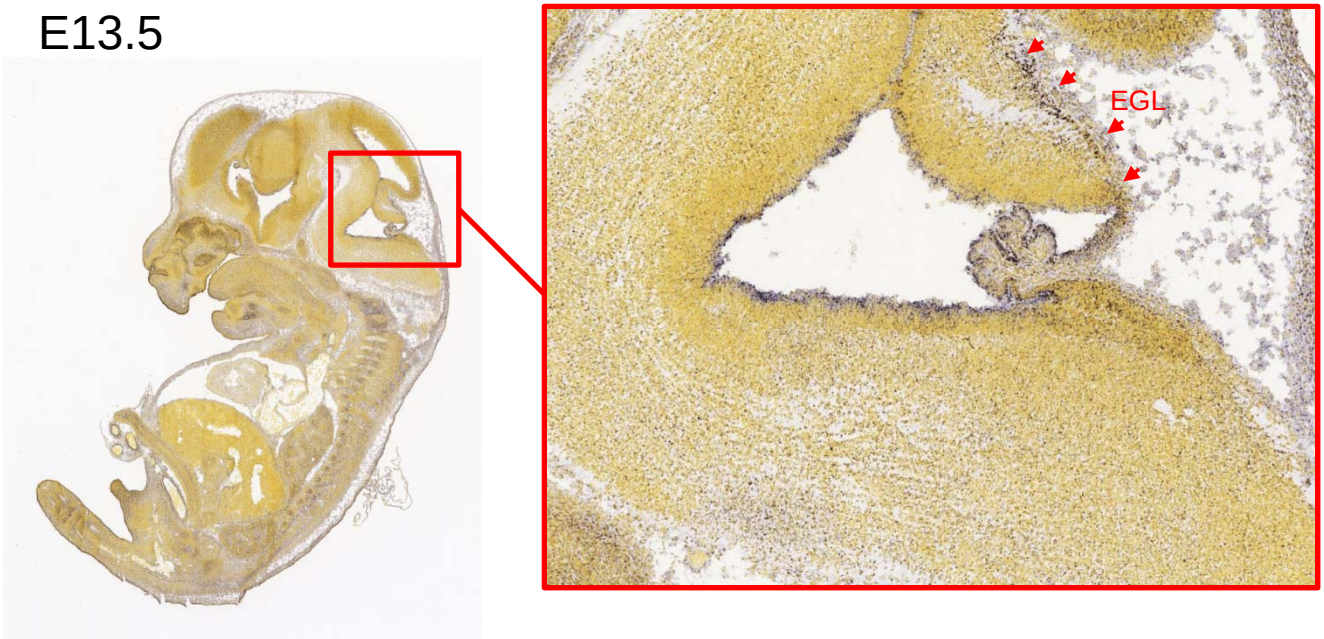
SHH-subgroup gene: *Atoh1*, Atonal (E15.5)

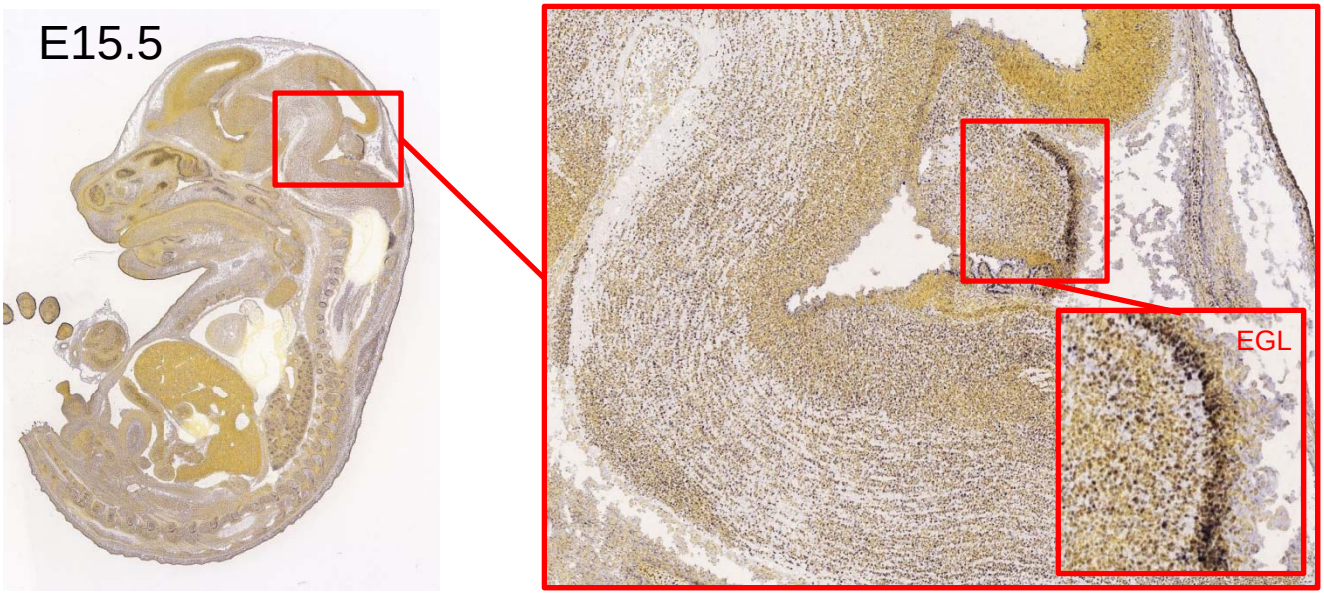




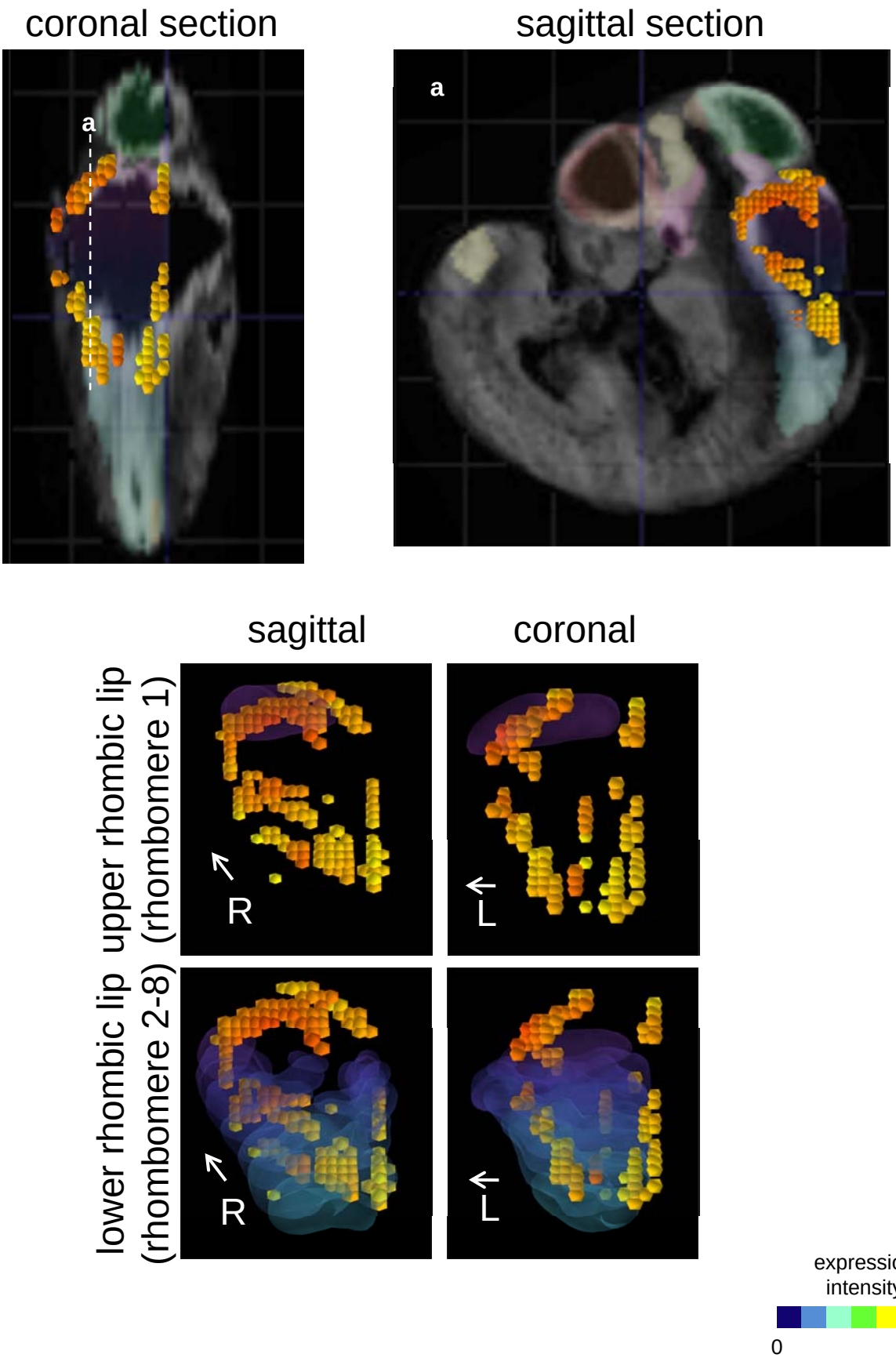
SHH-subgroup gene: *Plxnb2*, Plexin B2 (*in situ*)



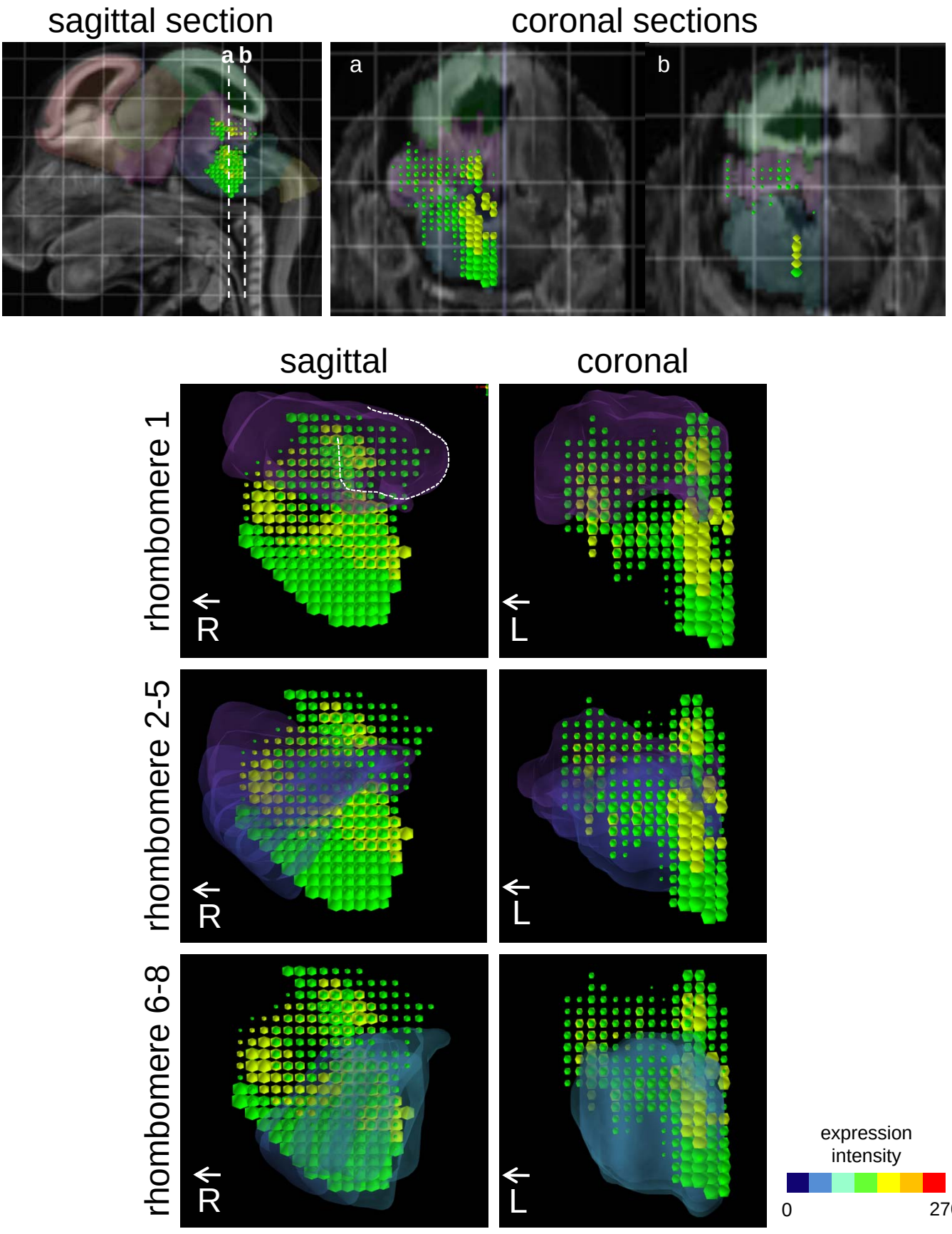




SHH-subgroup gene: *Plxnb2*, Plexin B2 (E11.5)

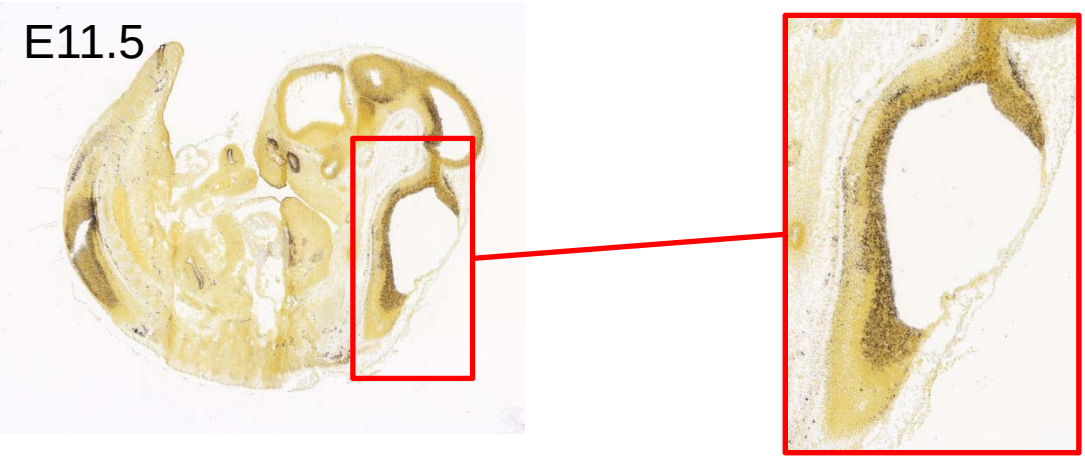


SHH-subgroup gene: *Plxnb2*, Plexin B2 (E15.5)



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

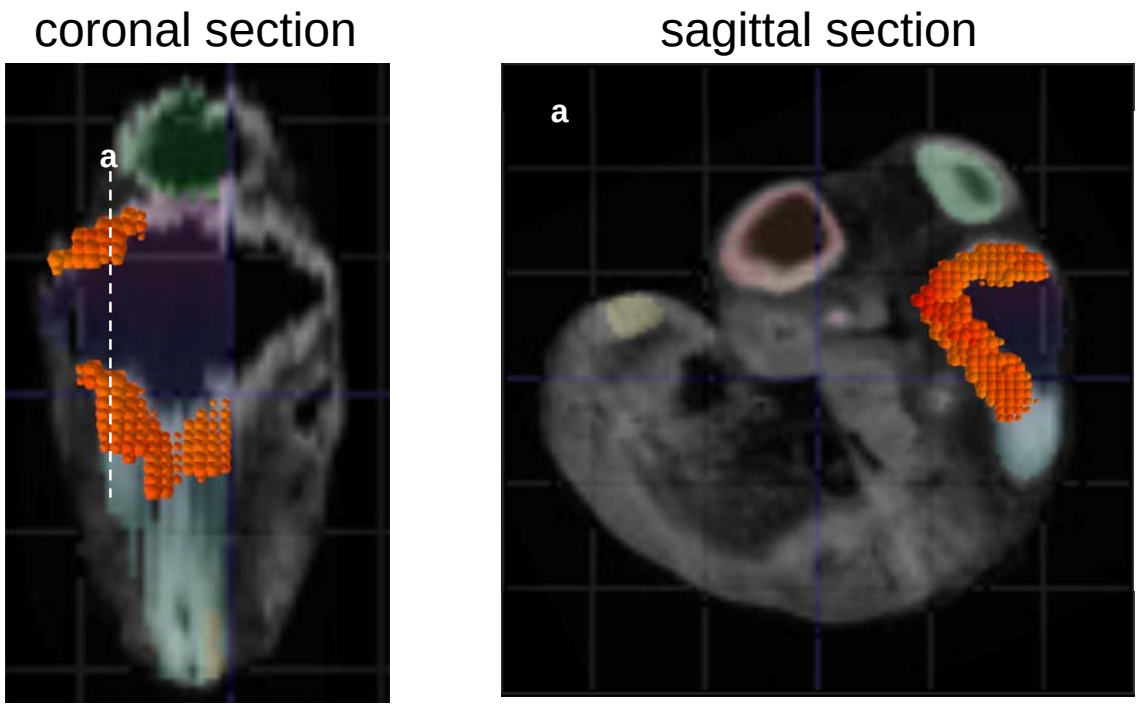
E11.5

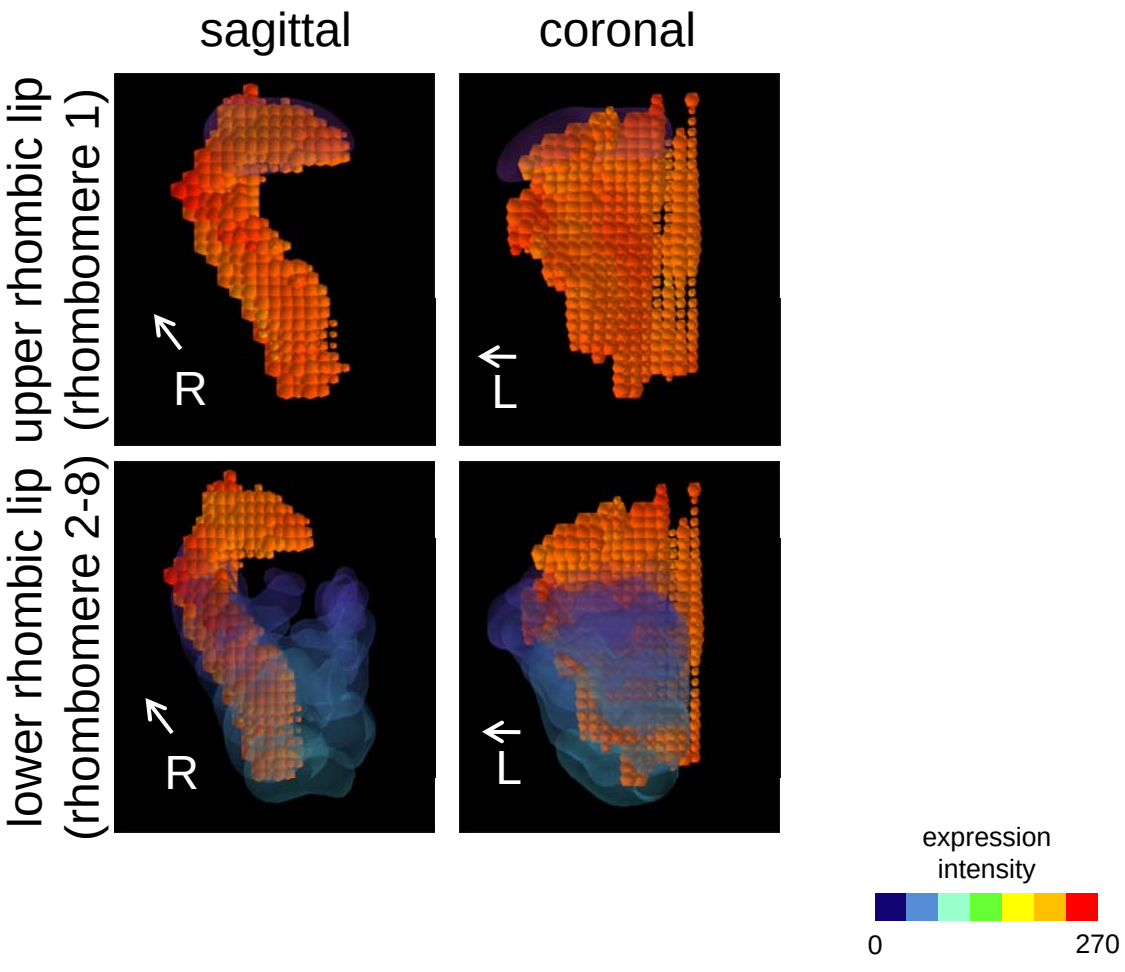


E13.5

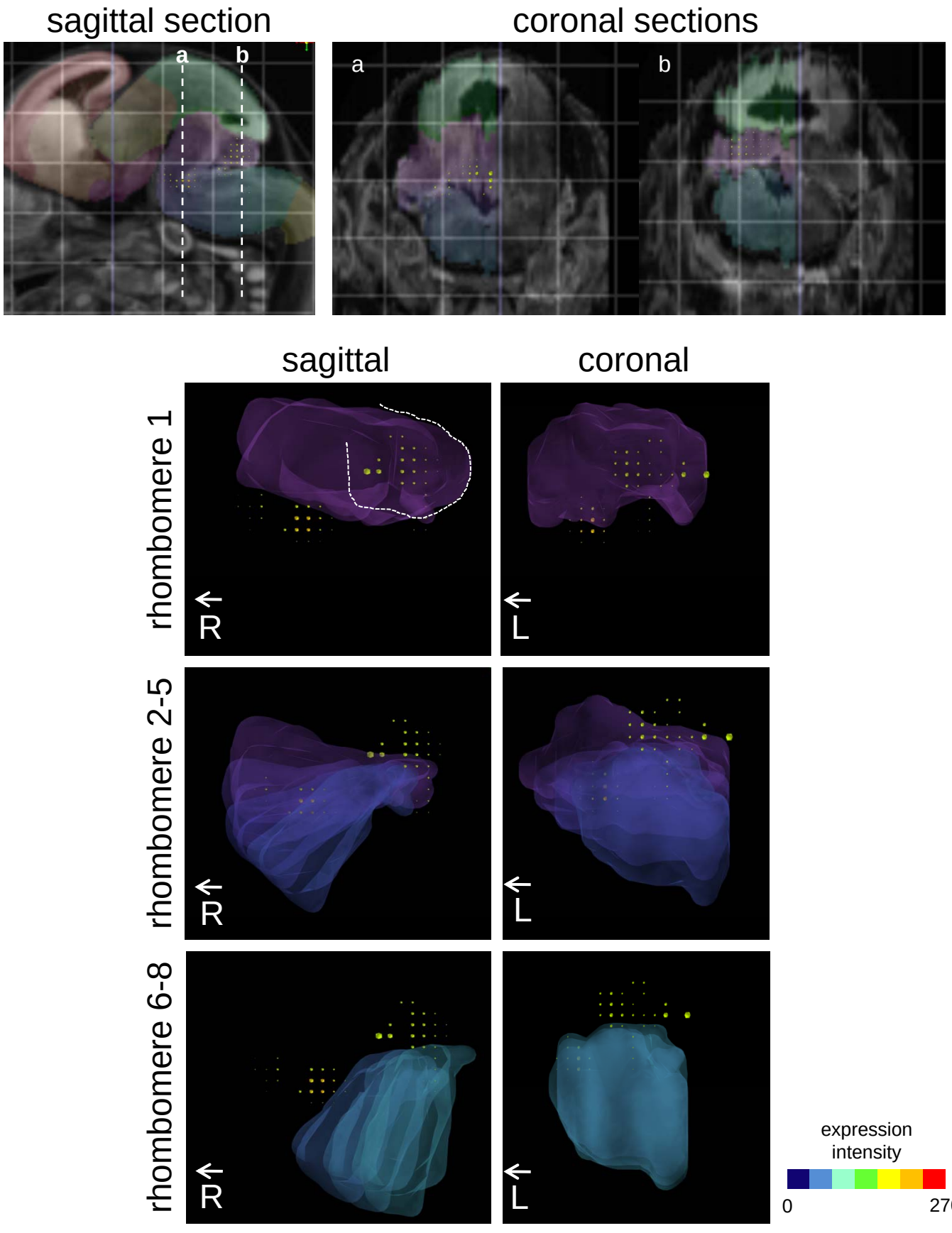
E15.5

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



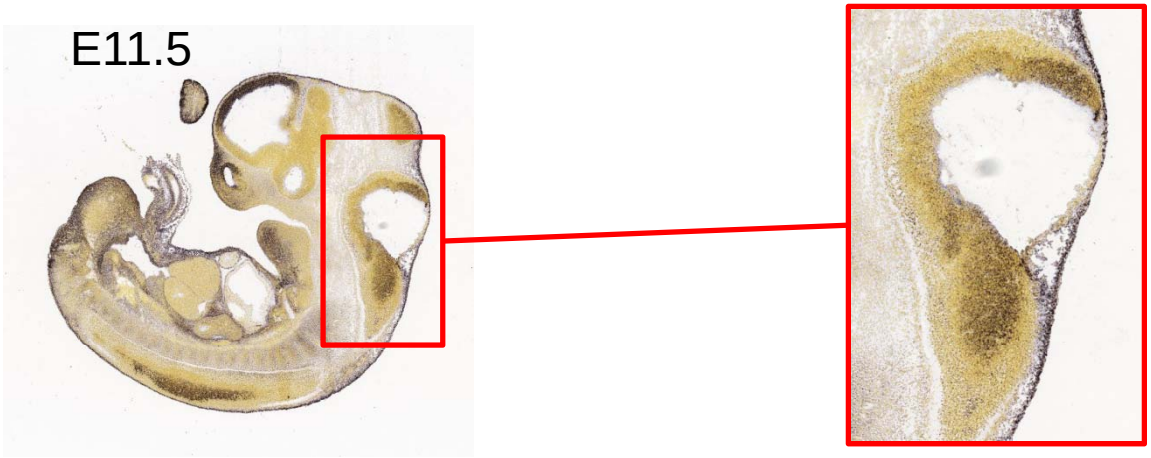


SHH-subgroup gene: *Cxcr4*, Chemokine c-x-c receptor 4 (E15.5)



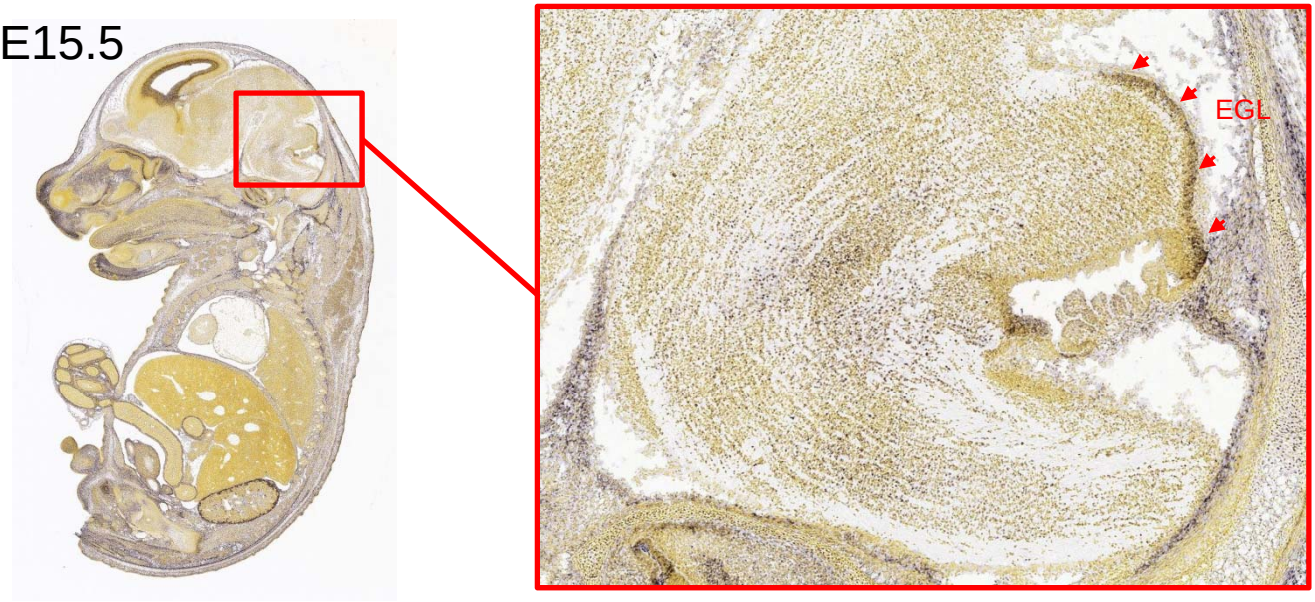
SHH-subgroup gene: *Gas1*, Growth arrest specific 1 (*in situ*)

E11.5

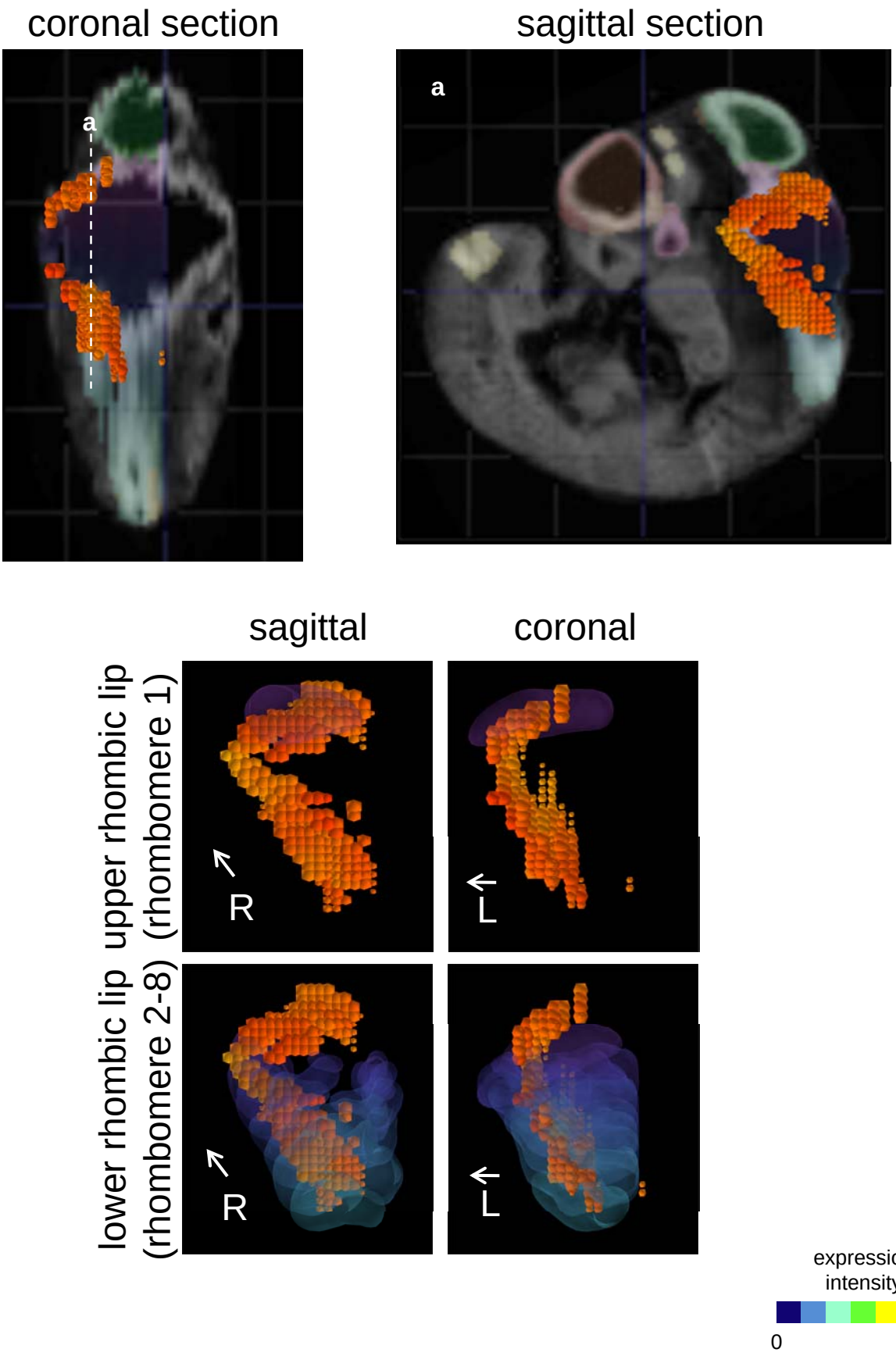


E13.5

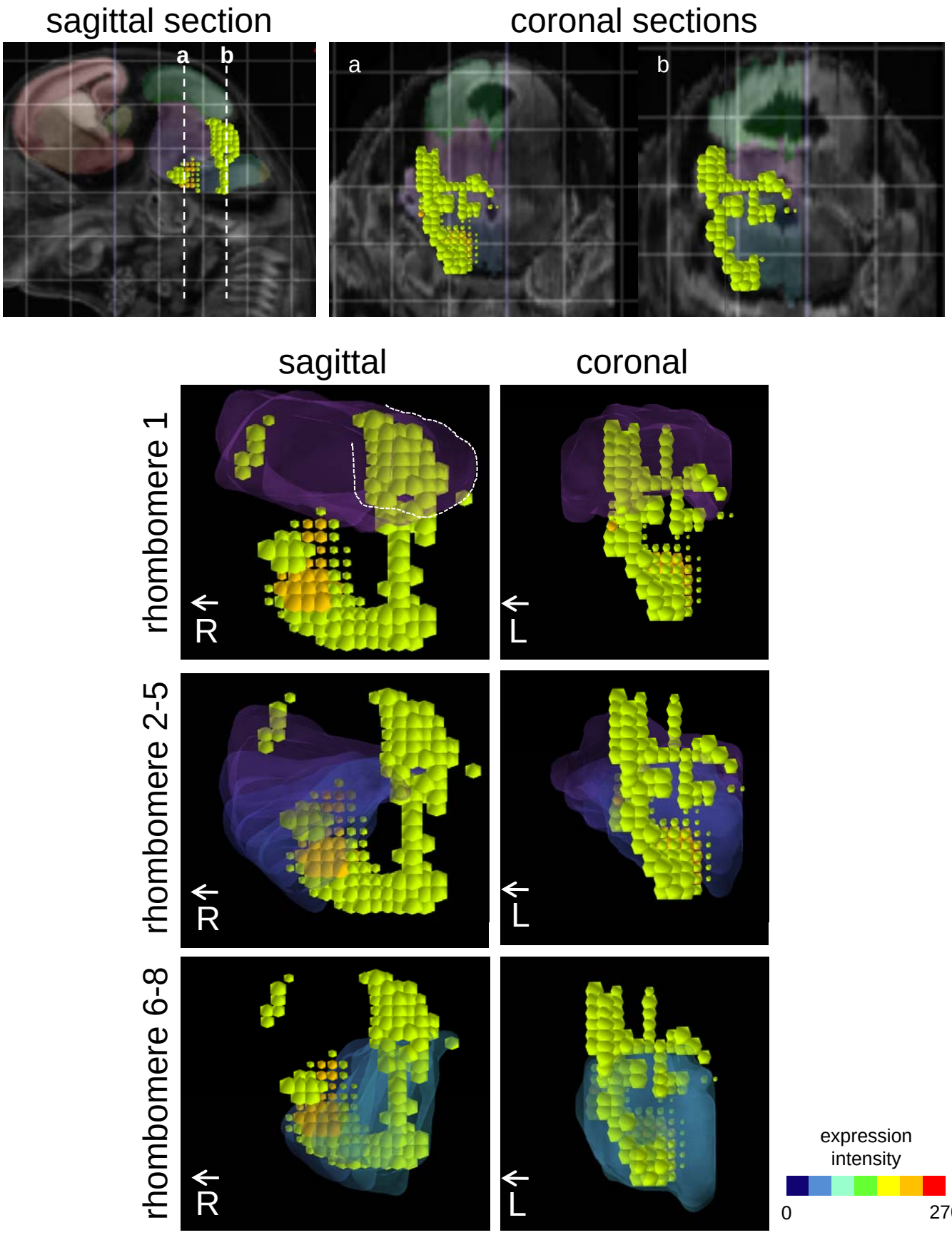
E15.5



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

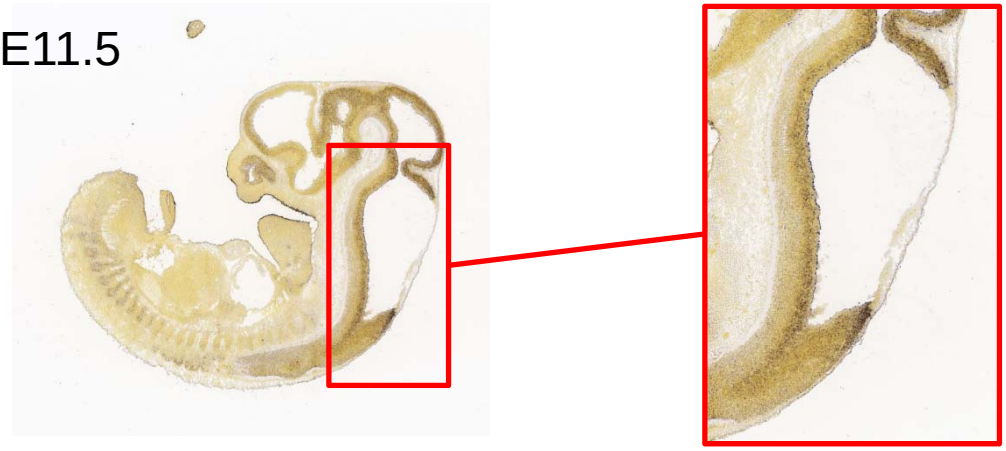


SHH-subgroup gene: *Gas1*, Growth arrest specific 1 (E15.5)

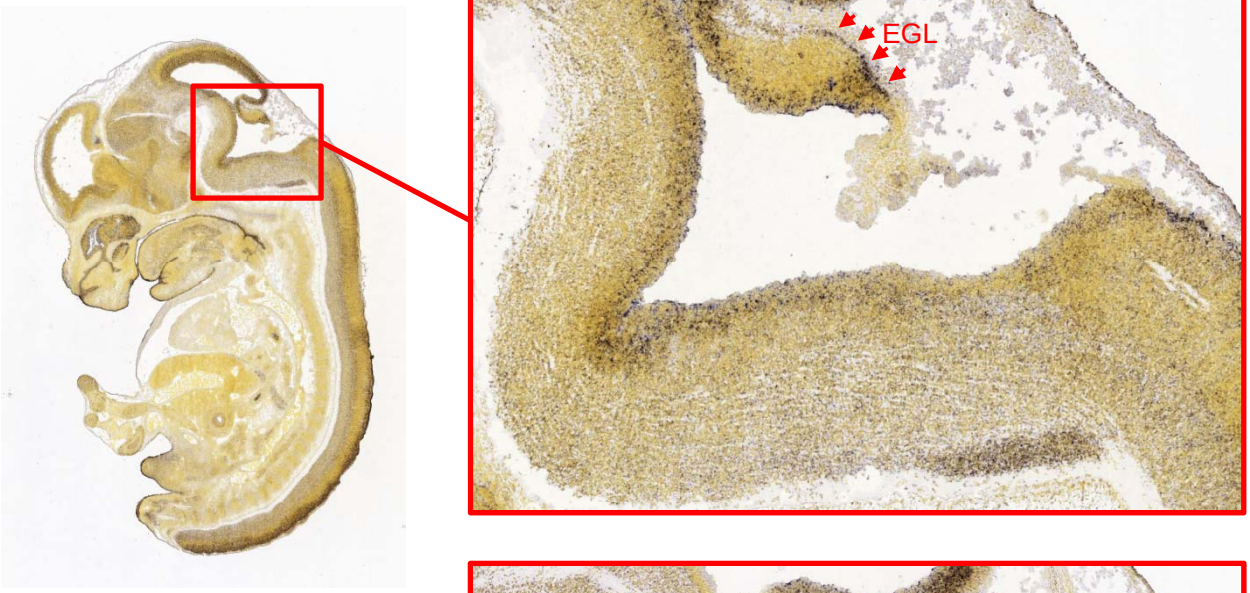


SHH-subgroup gene: *Mycl1*, v-myc myelocytomatosis 1 (*in situ*)

E11.5

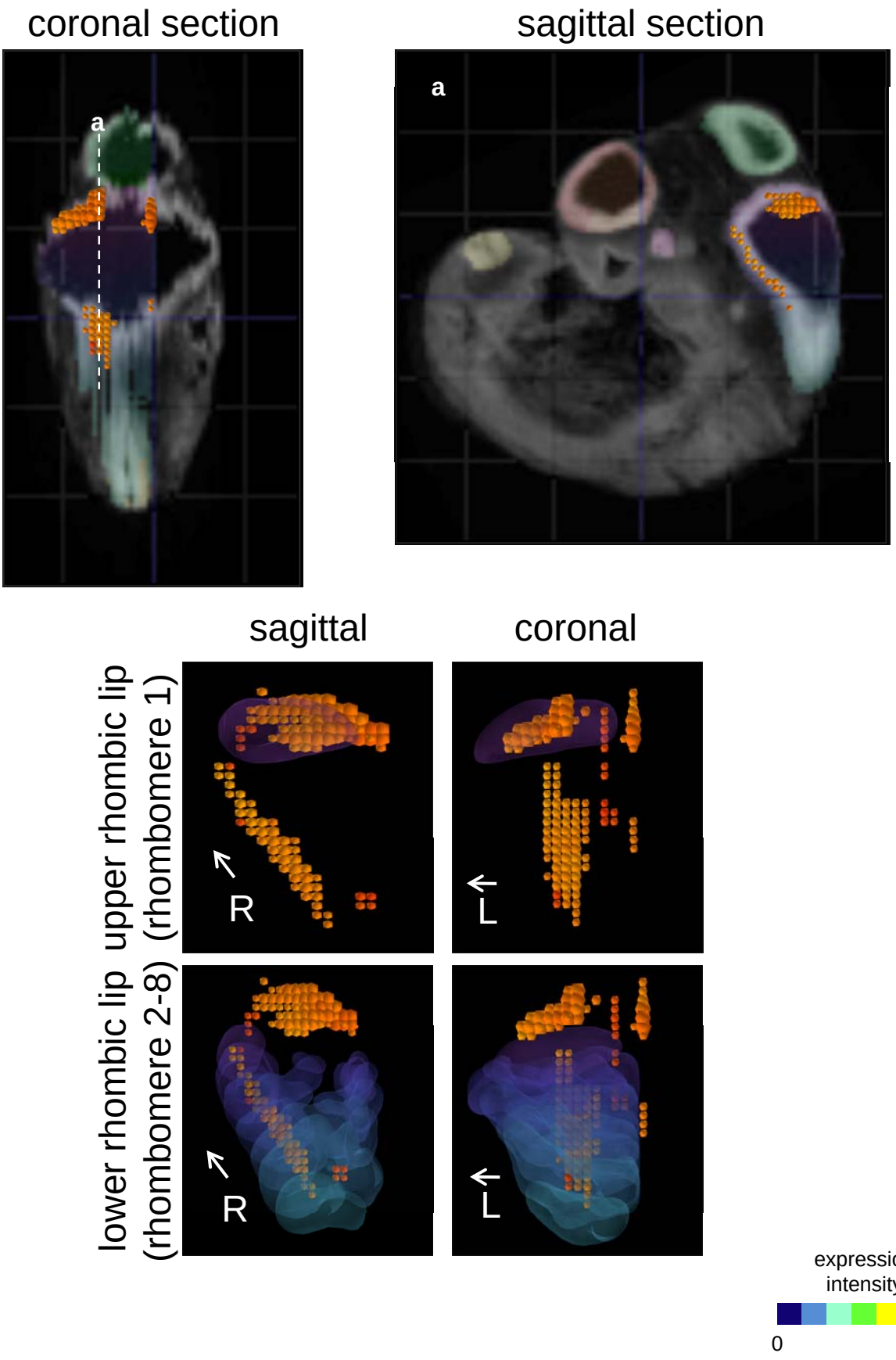


E13.5

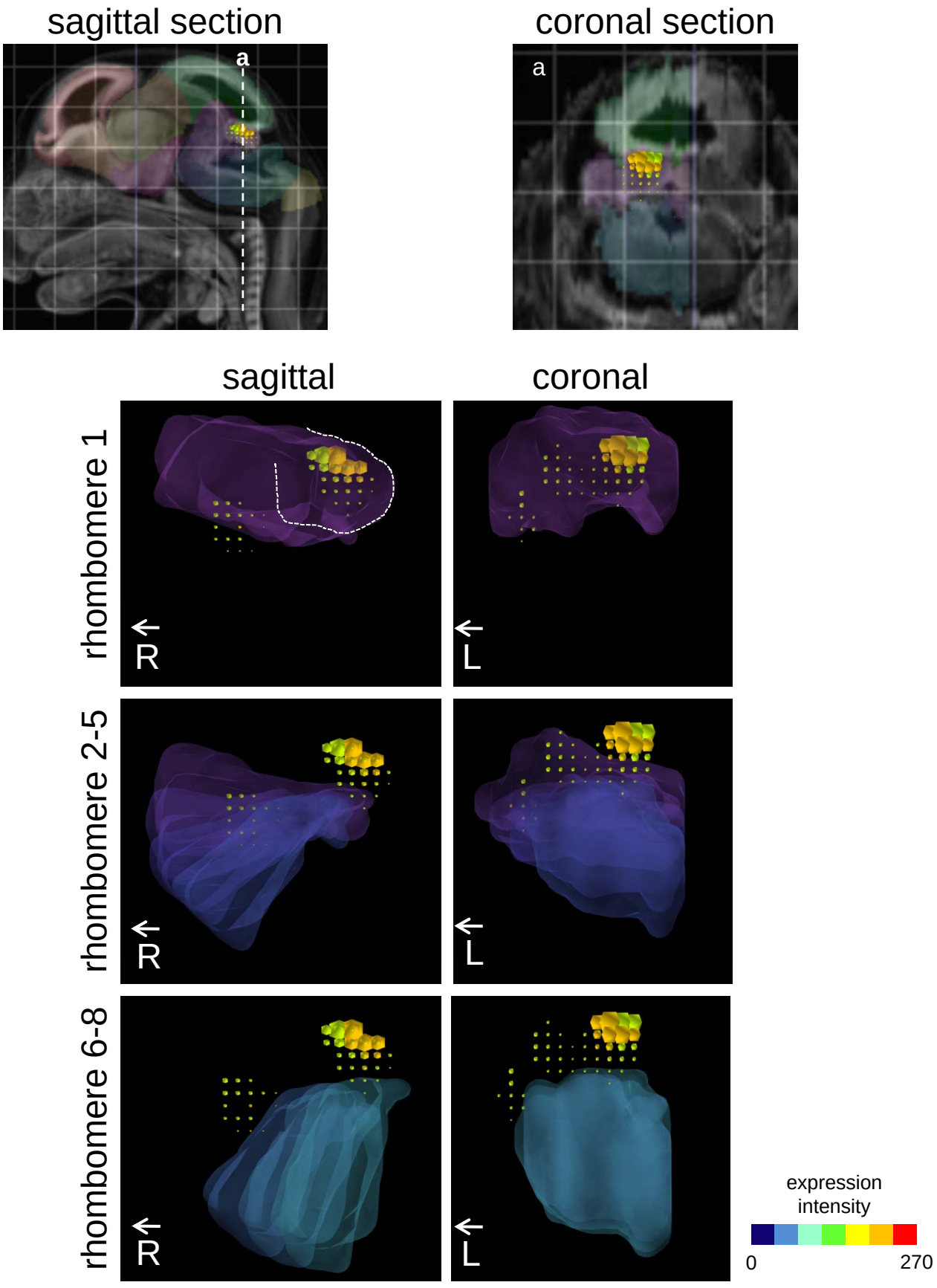


E15.5

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



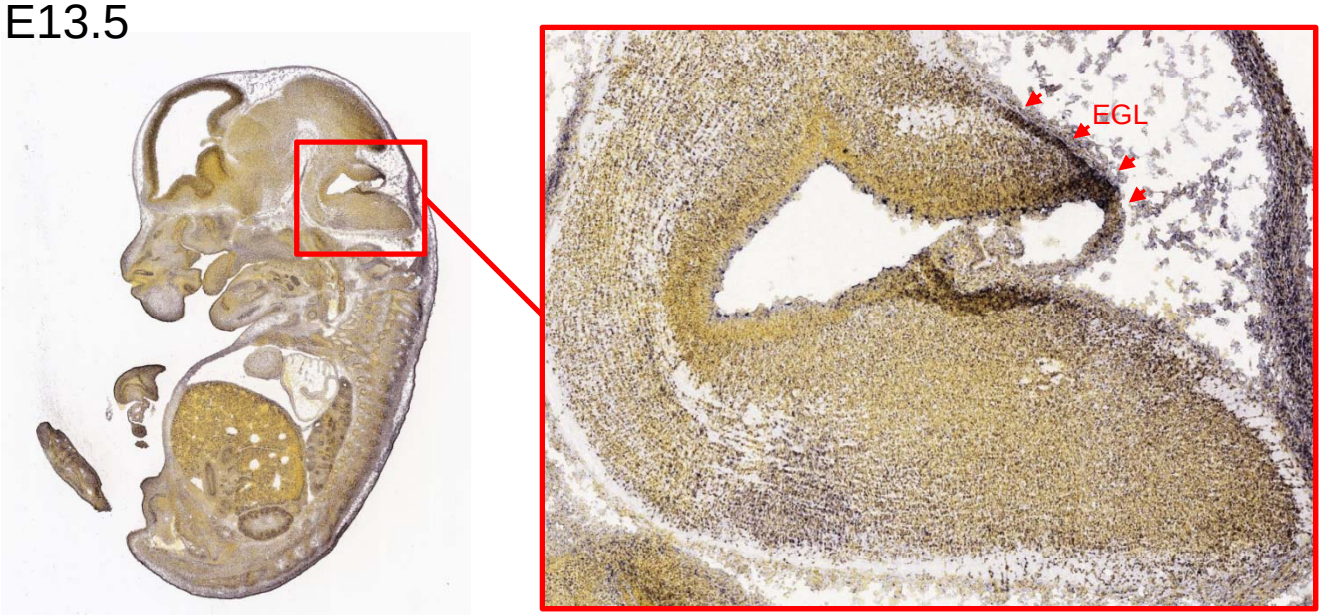
SHH-subgroup gene: *Mycl1*, v-myc myelocytomatosis 1 (E15.5)



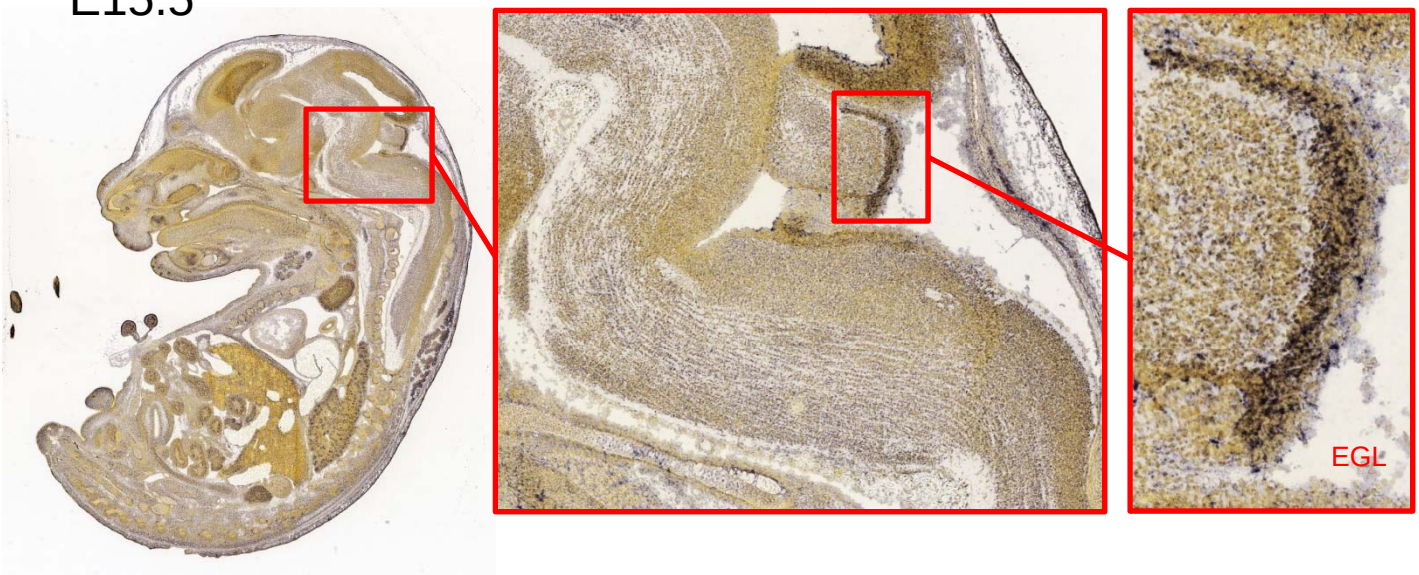
SHH-subgroup gene: *Trim28*, Tripartite motif 28 (*in situ*)

E11.5

E13.5

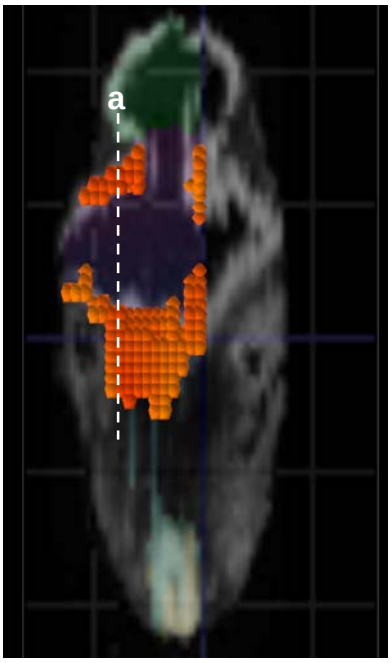


E15.5

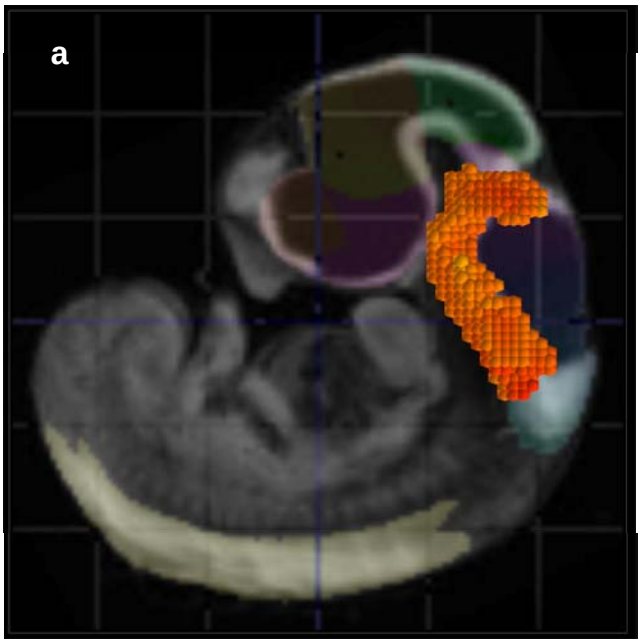


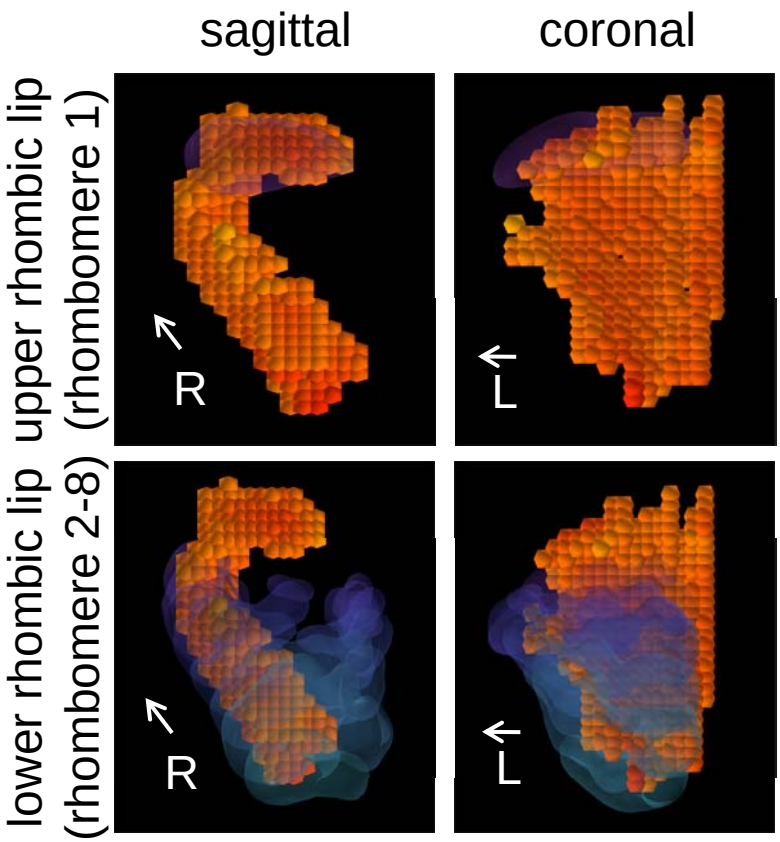
SHH-subgroup gene: *Trim28*, Tripartite motif 28 (E11.5)

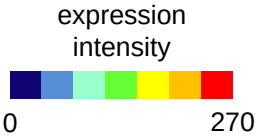
coronal section



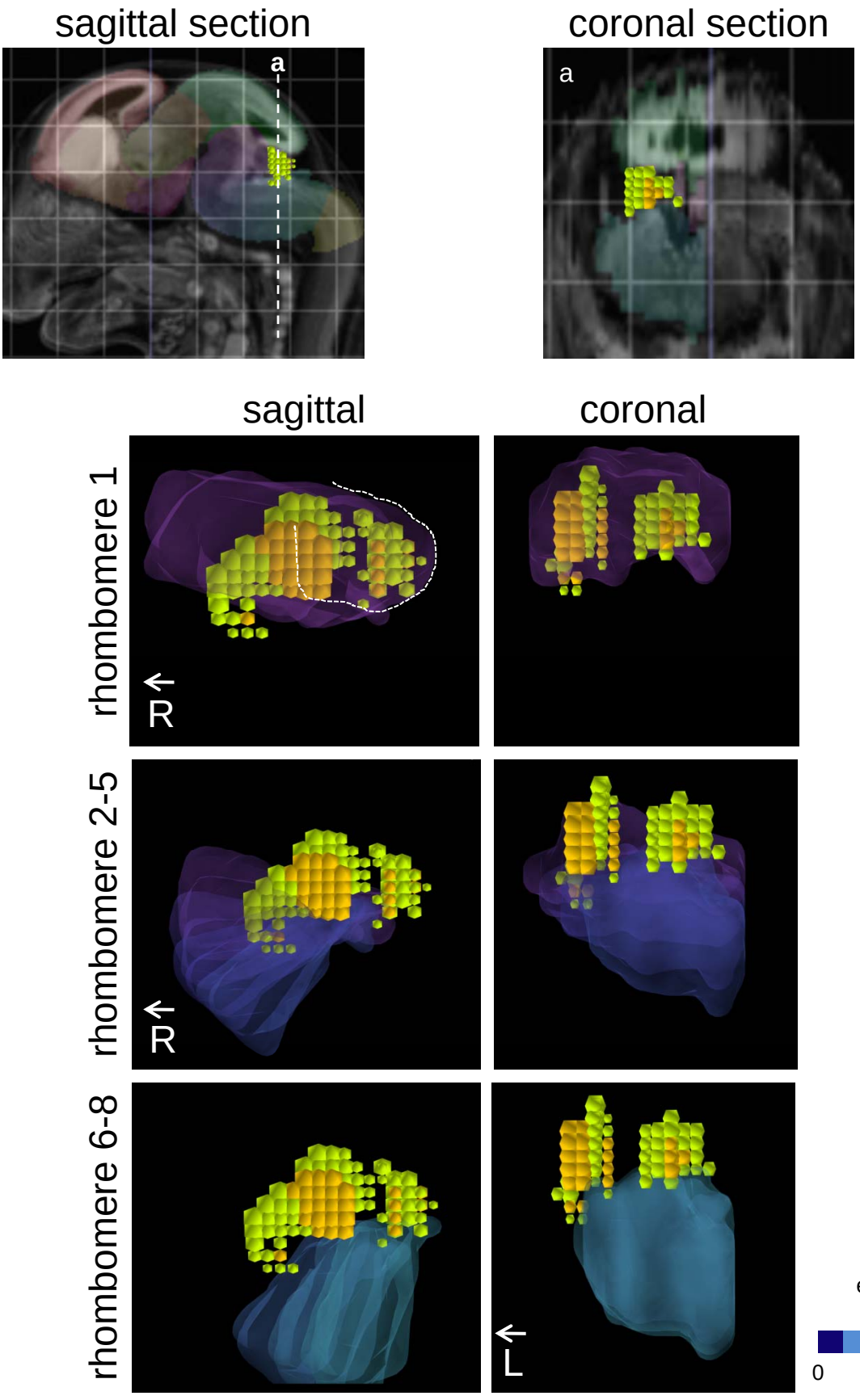
sagittal section





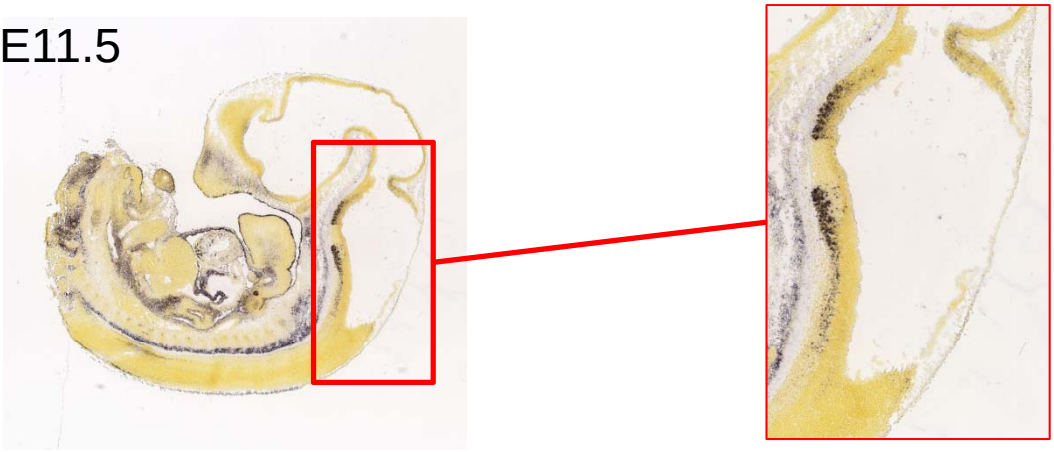


SHH-subgroup gene: *Trim28*, Tripartite motif 28 (E15.5)

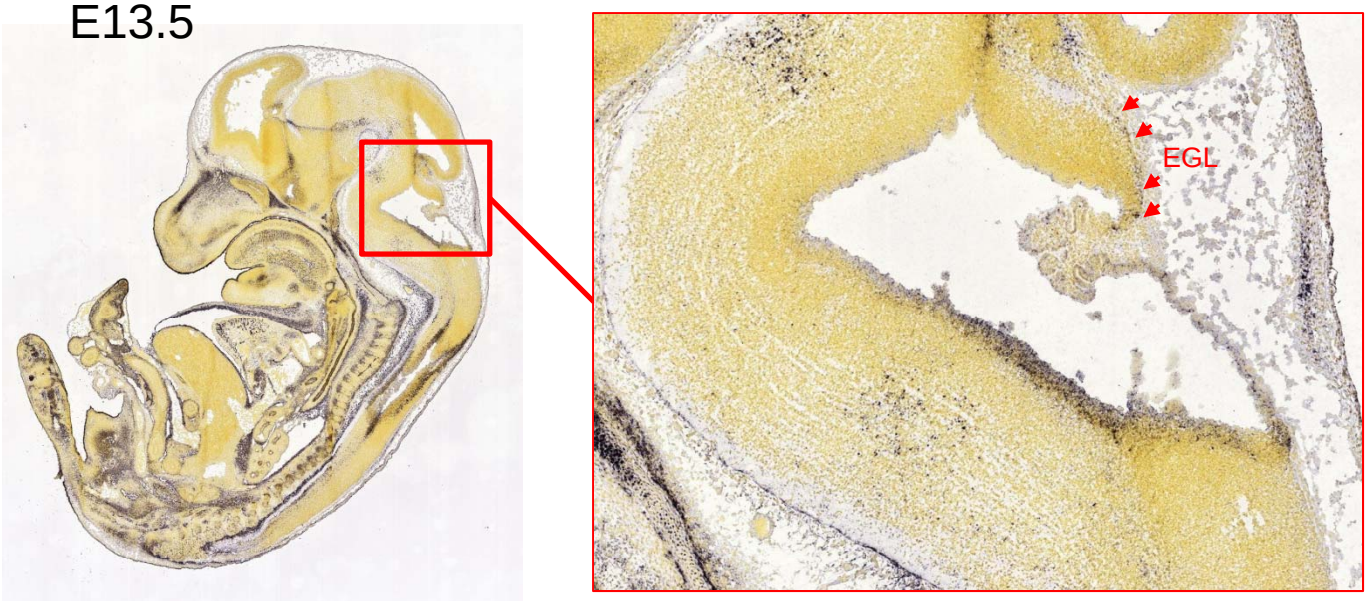


SHH-subgroup gene: *Igfbp5*, Insulin like growth factor binding protein 5 (*in situ*)

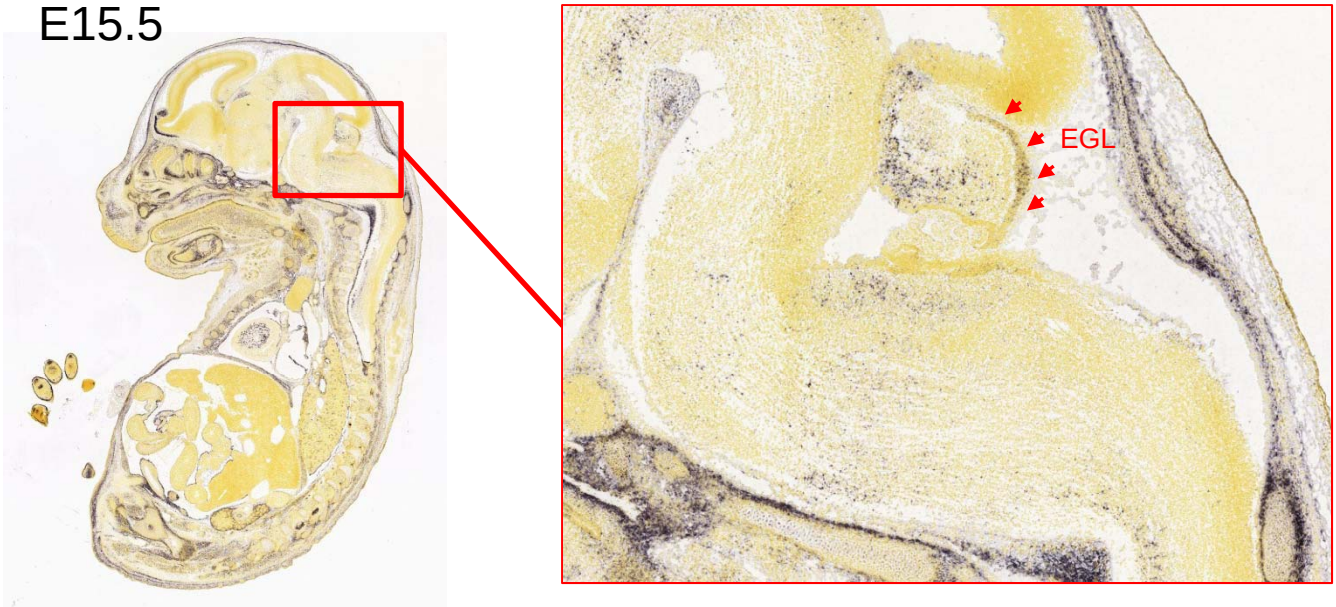
E11.5



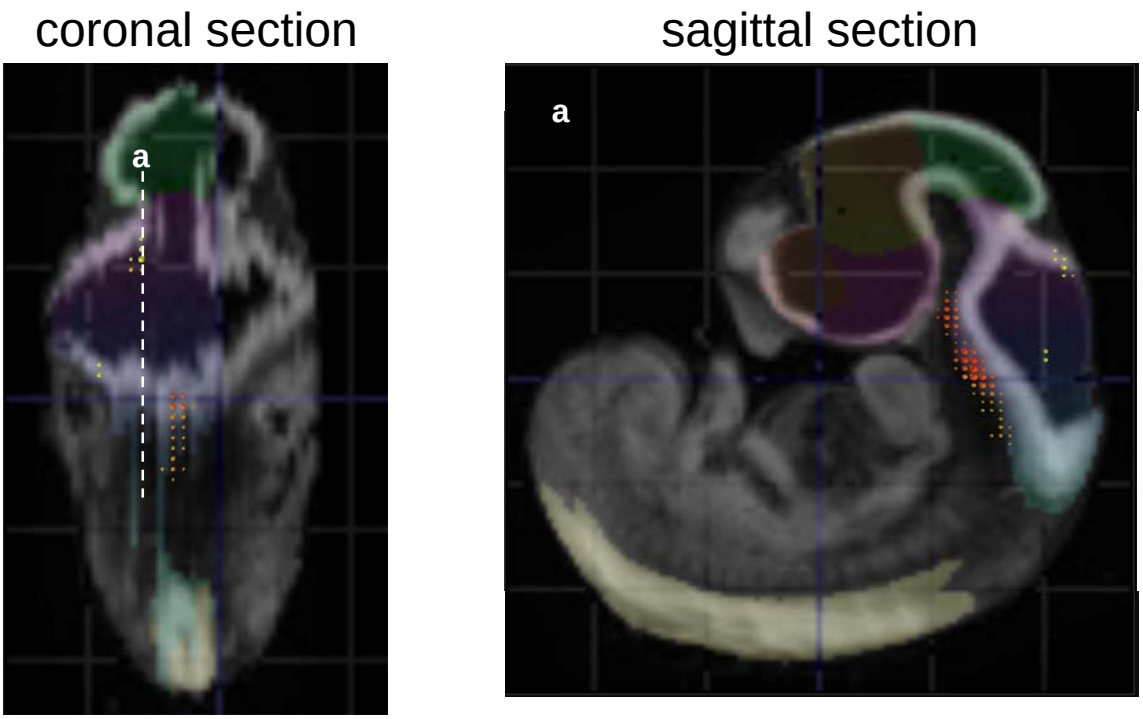
E13.5

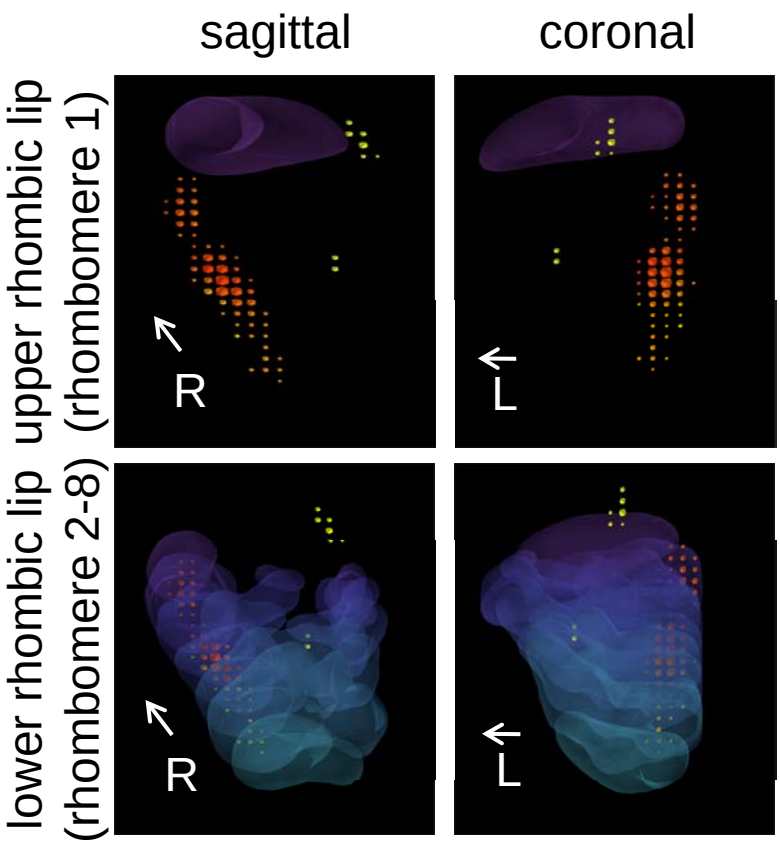


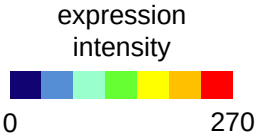
E15.5



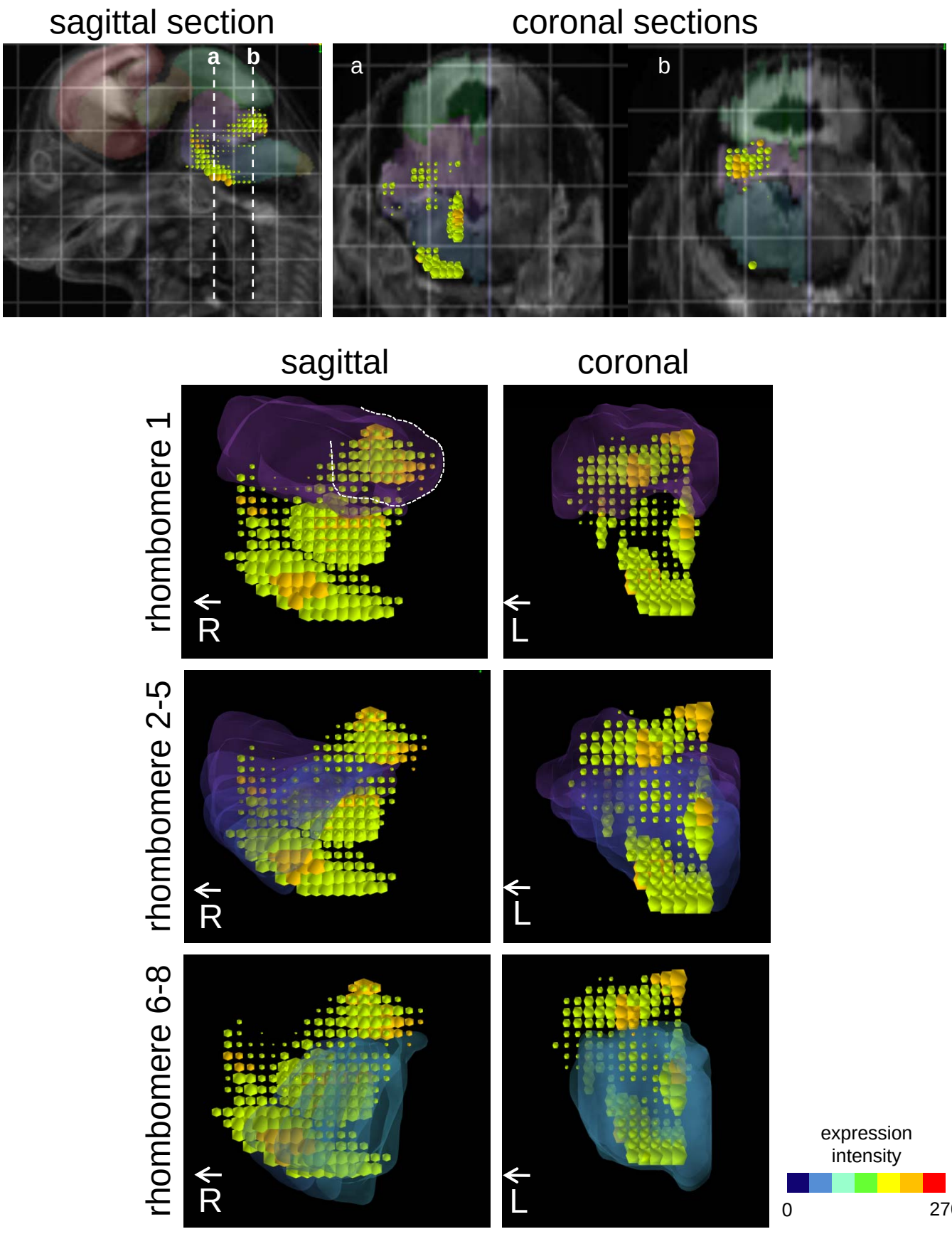
SHH-subgroup gene: *Igfbp5*, Insulin like growth factor binding protein 5 (E11.5)





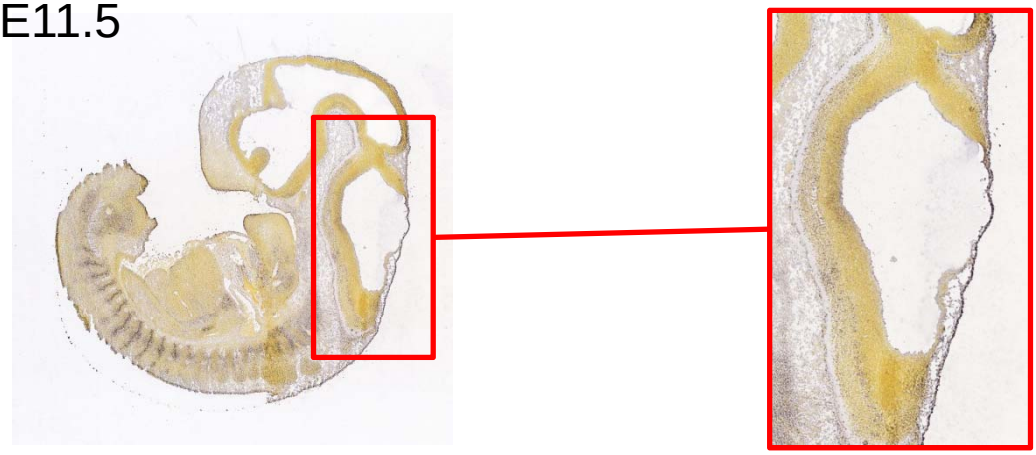


SHH-subgroup gene: *Igfbp5*, Insulin like growth factor binding protein 5 (E15.5)

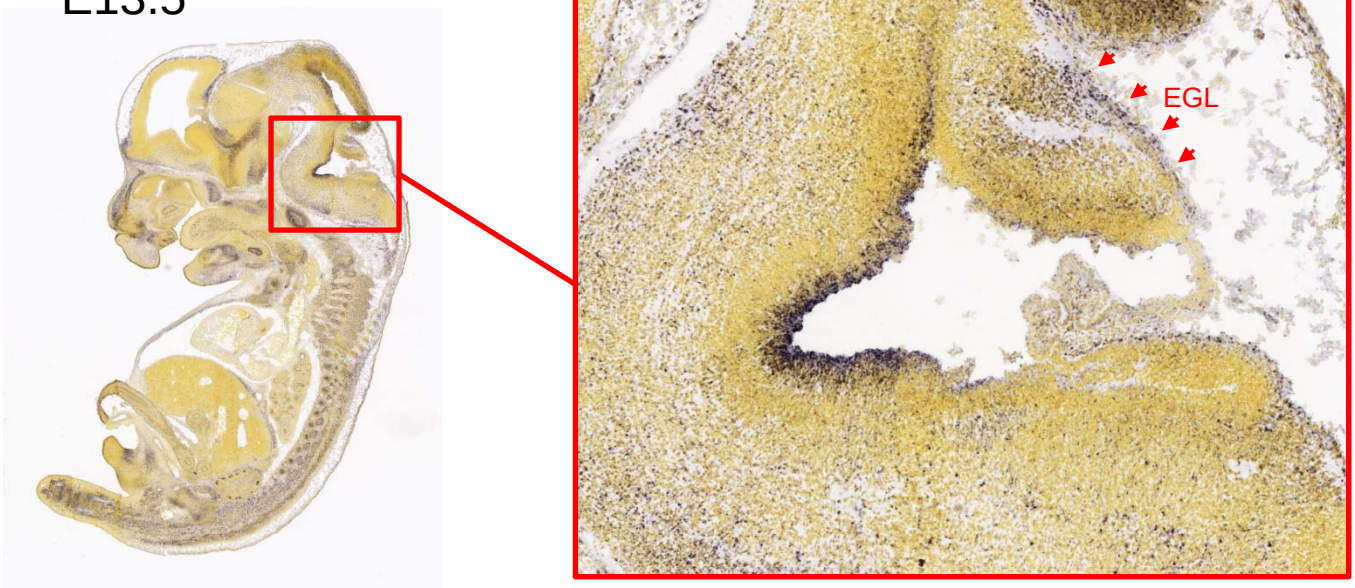


SHH-subgroup gene: *Sema6a*, Sema domain 6a (*in situ*)

E11.5

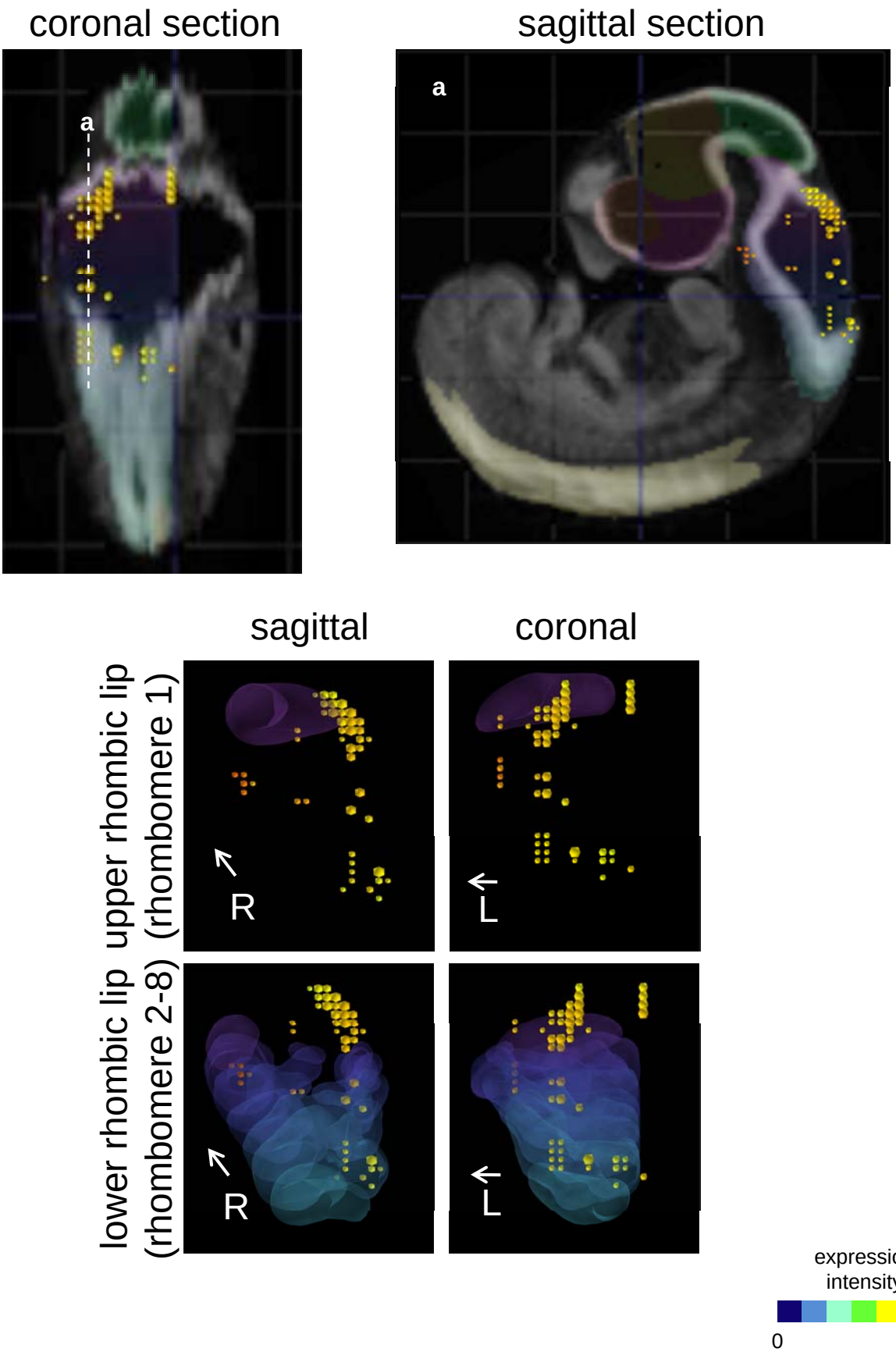


E13.5

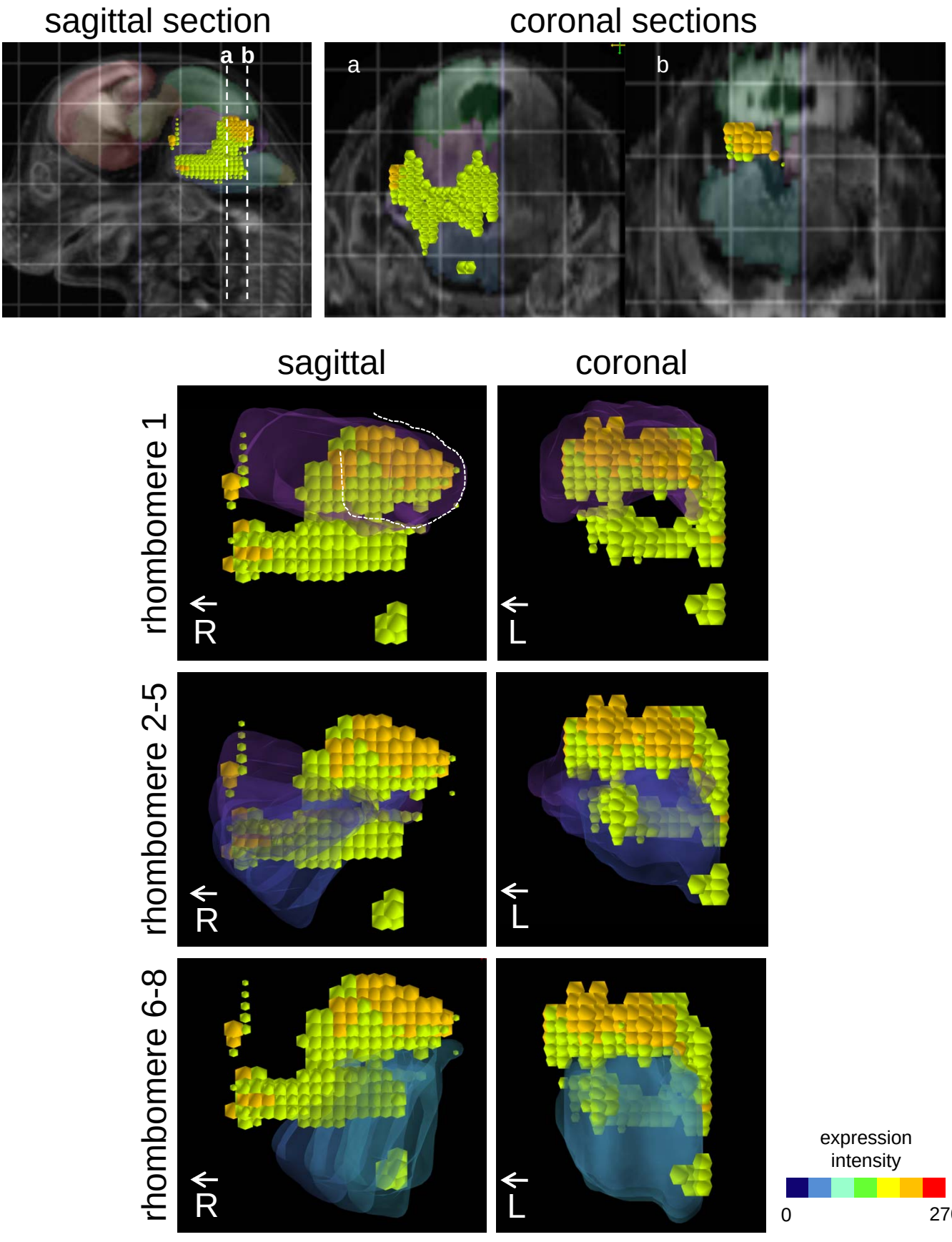


E15.5

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

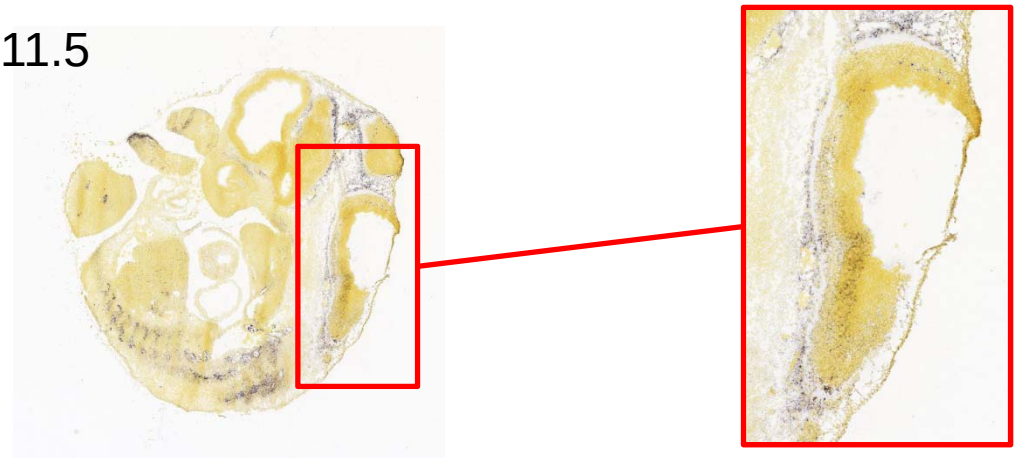


SHH-subgroup gene: *Sema6a*, Sema domain 6a (E15.5)

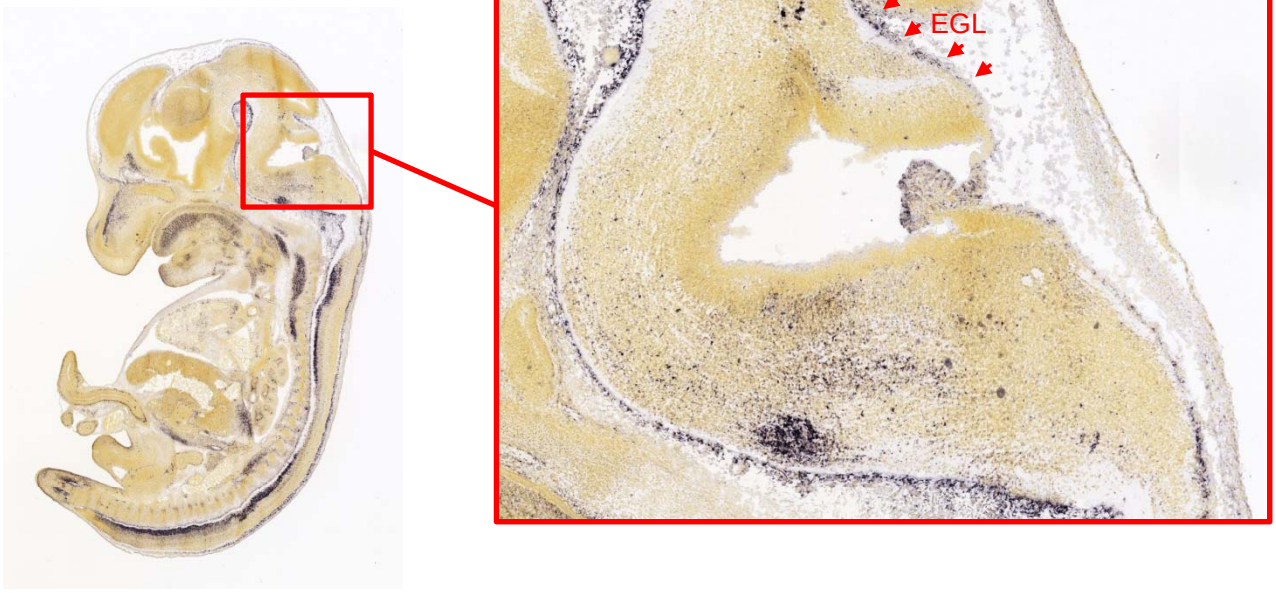


SHH-subgroup gene: *Ngfr,* Nerve growth factor receptor (*in situ*)

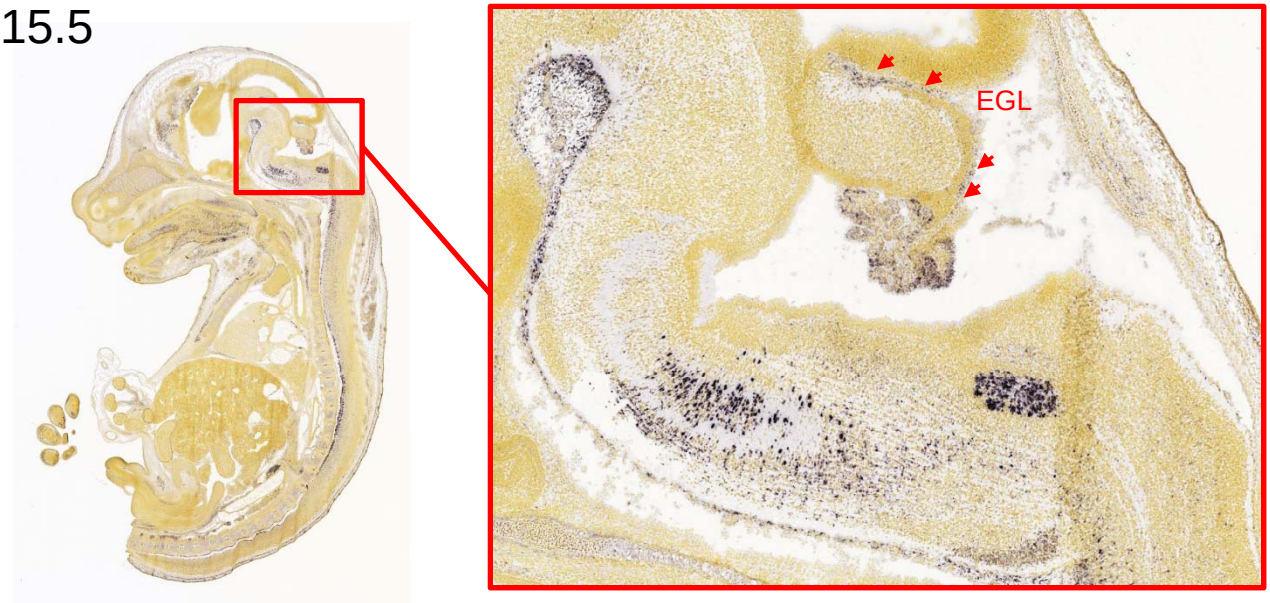
E11.5



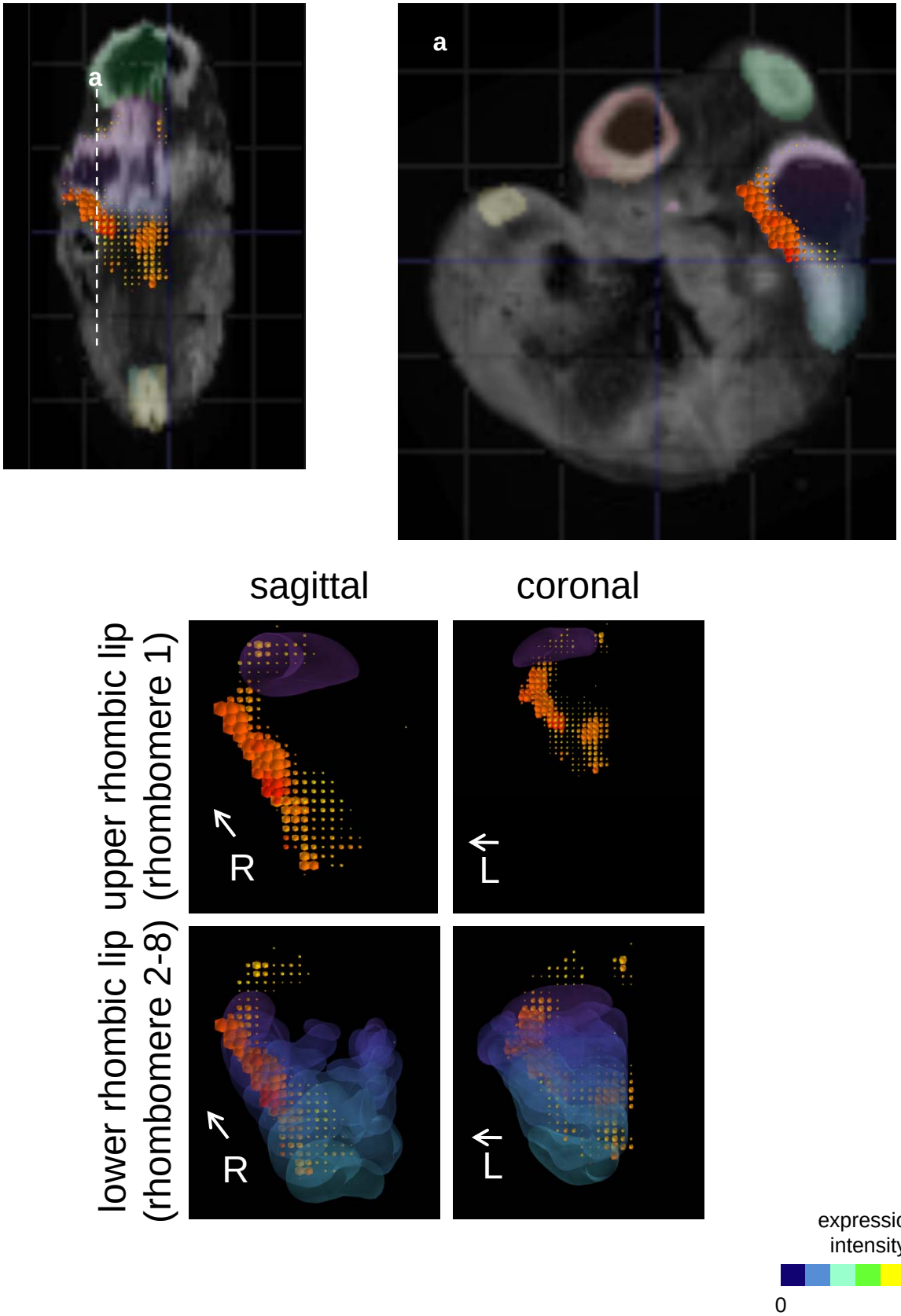
E13.5



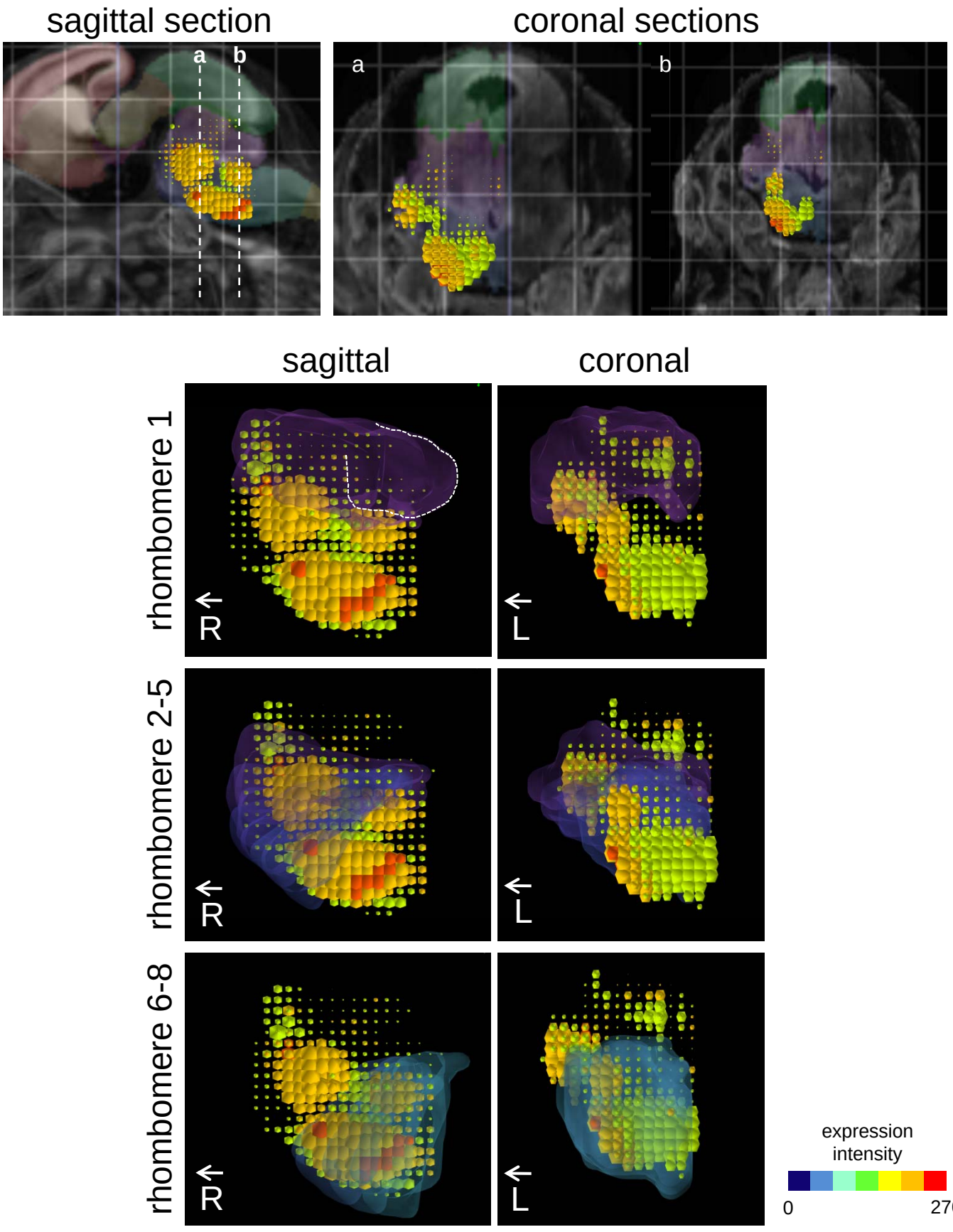
E15.5



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

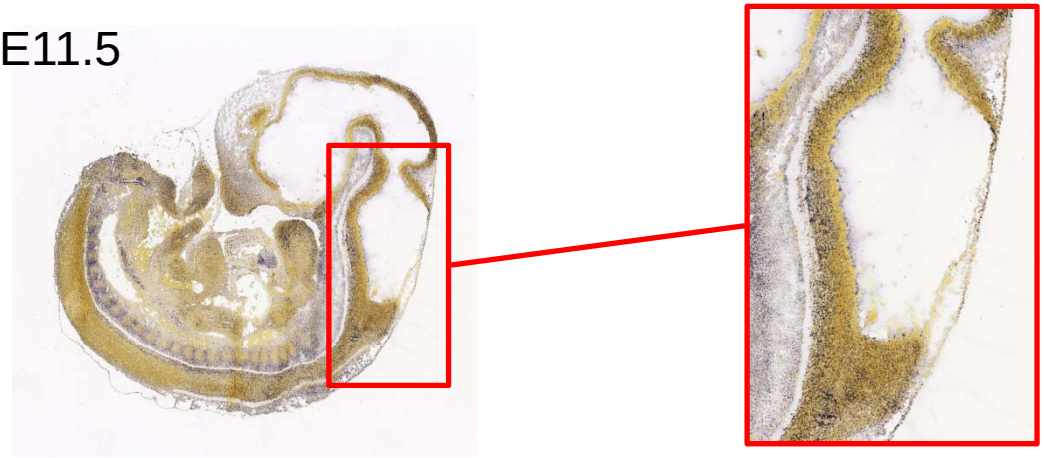


SHH-subgroup gene: *Ngfr,* Nerve growth factor receptor (E15.5)

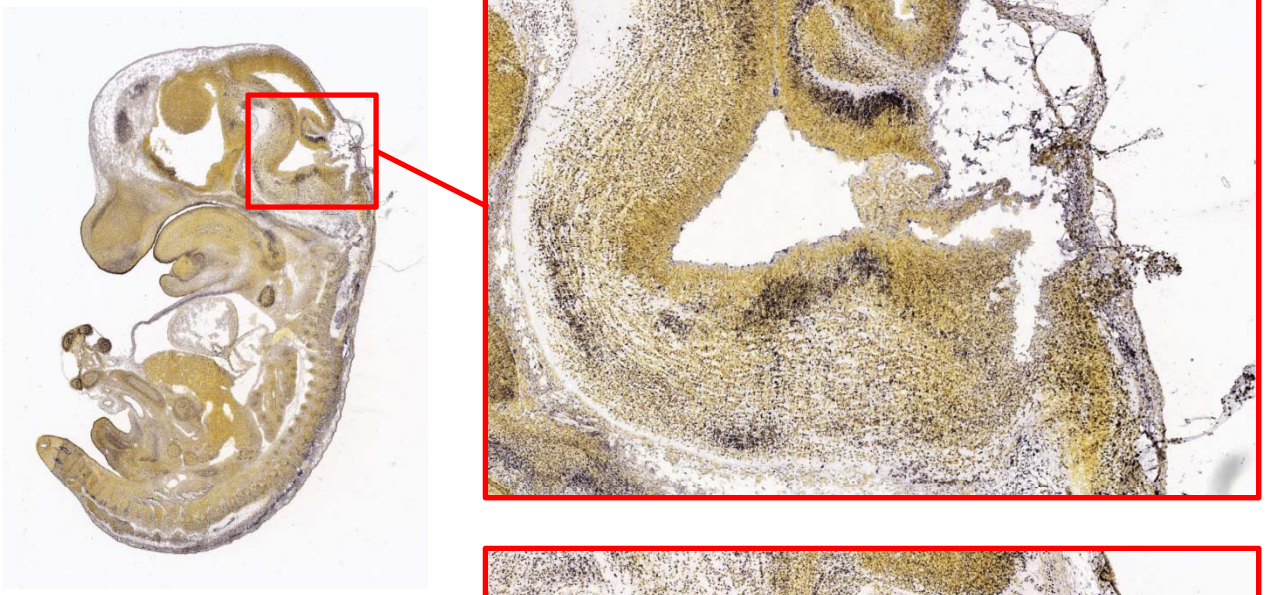


SHH-subgroup gene: *Lmo4,* Lim domain only 4 (*in situ*)

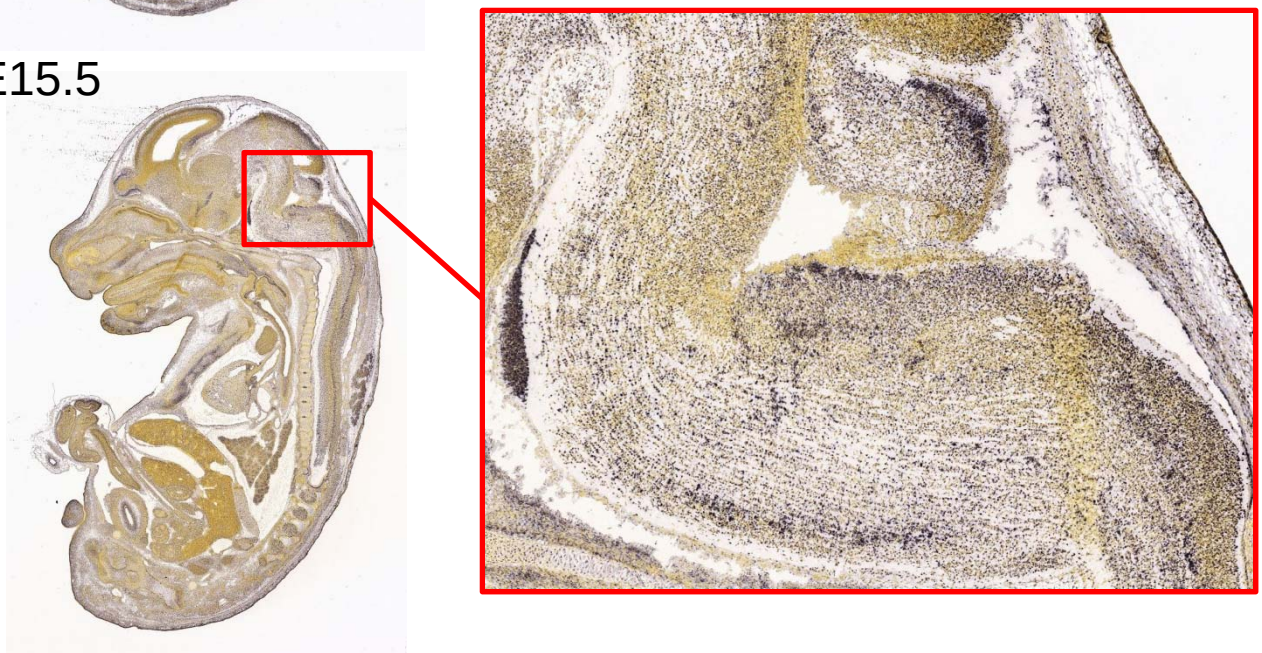
E11.5



E13.5

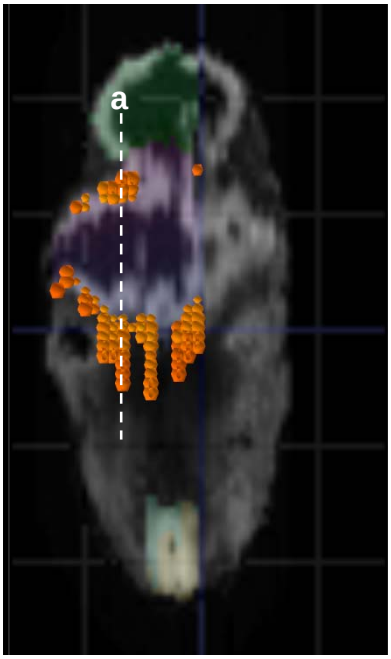


E15.5

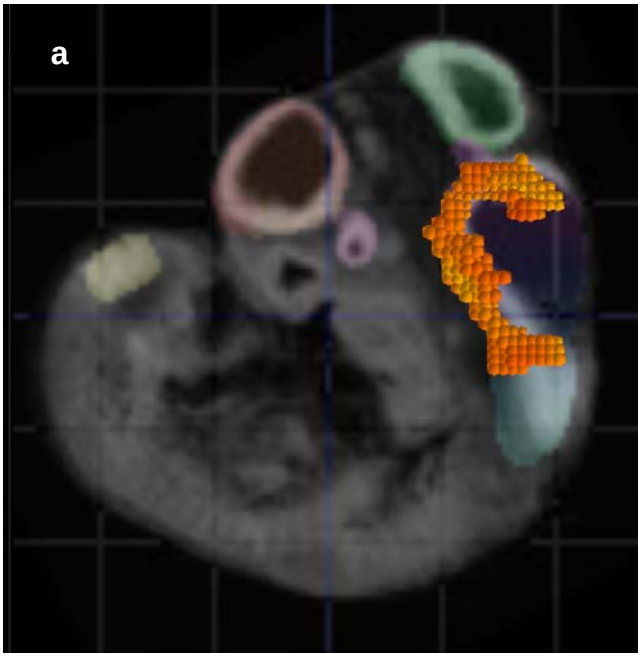


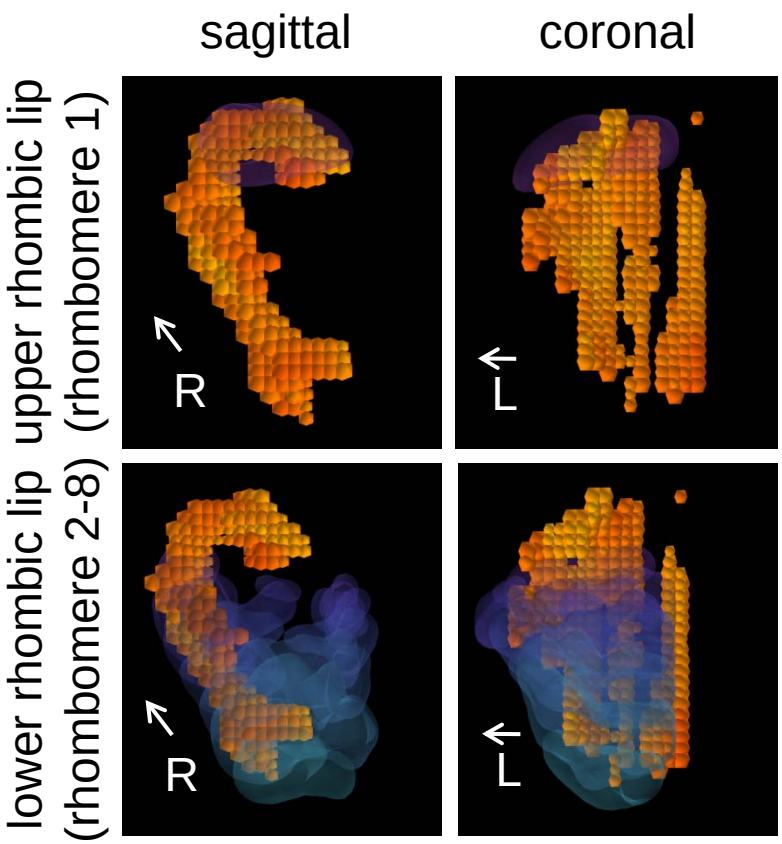
SHH-subgroup gene: *Lmo4,* Lim domain only 4 (E11.5)

coronal section



sagittal section

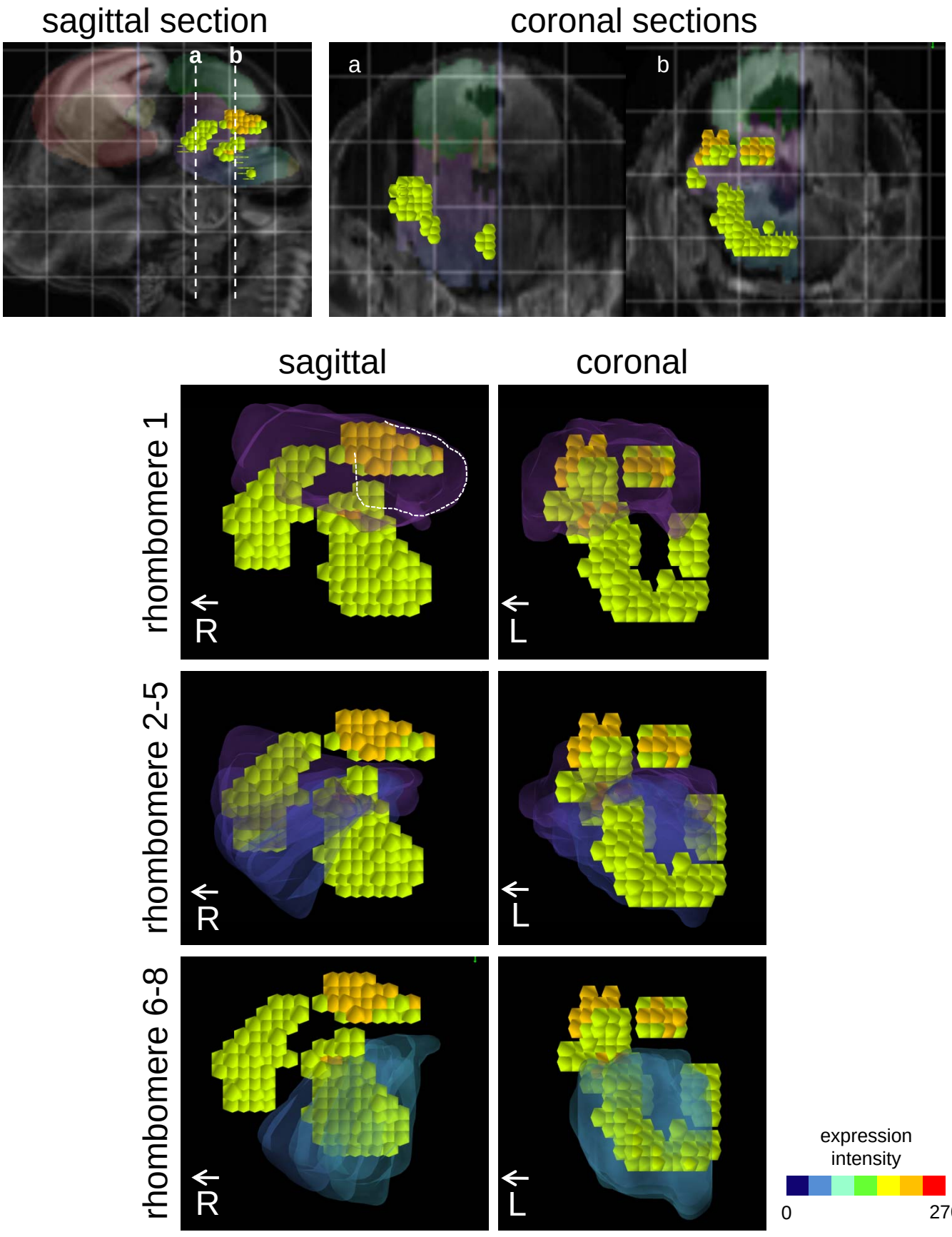




expression intensity

0 270

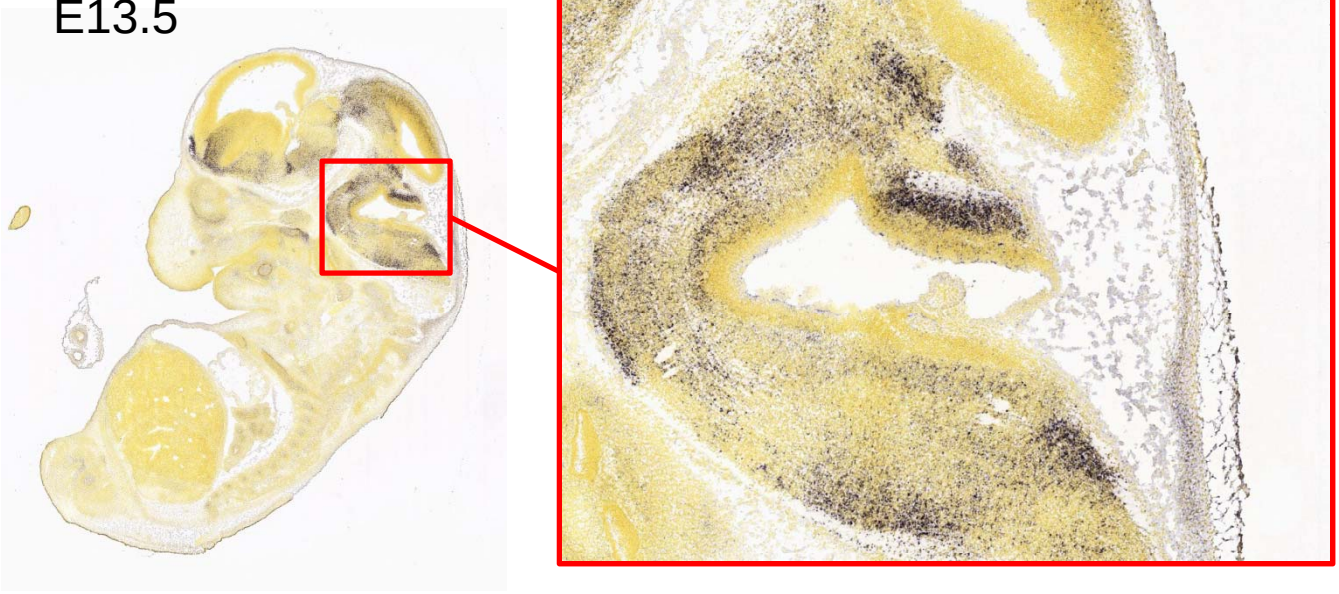
SHH-subgroup gene: *Lmo4,* Lim domain only 4 (E15.5)



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

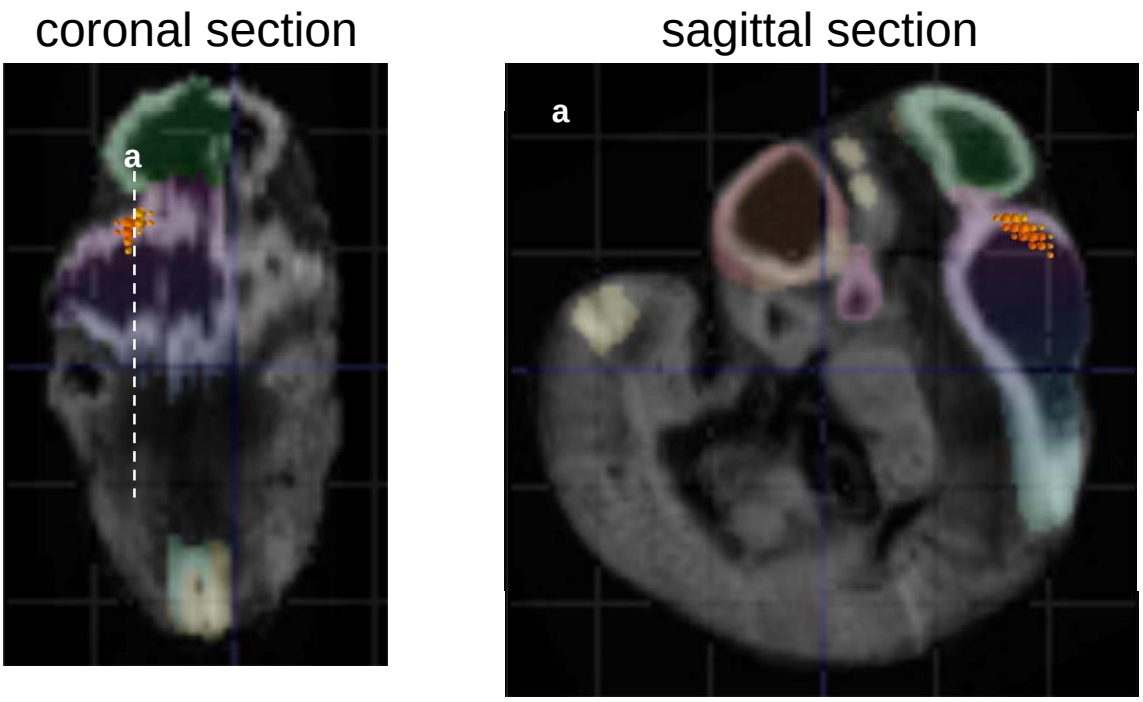
E11.5

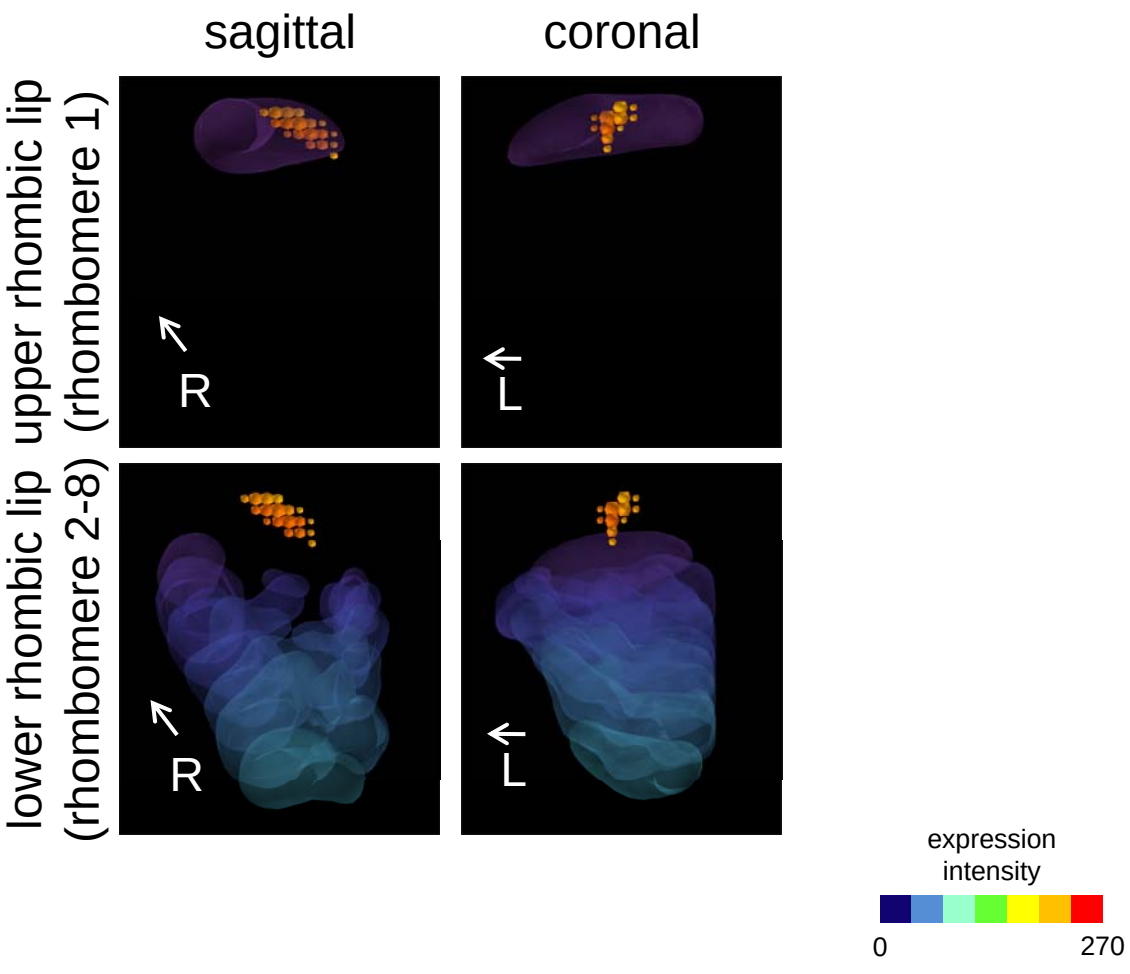
E13.5



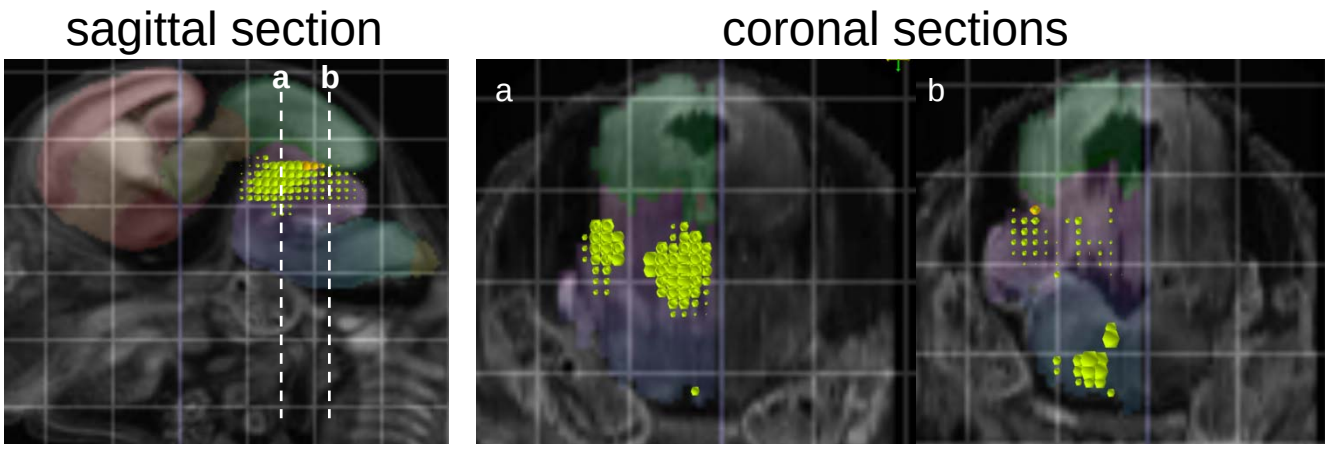
E15.5

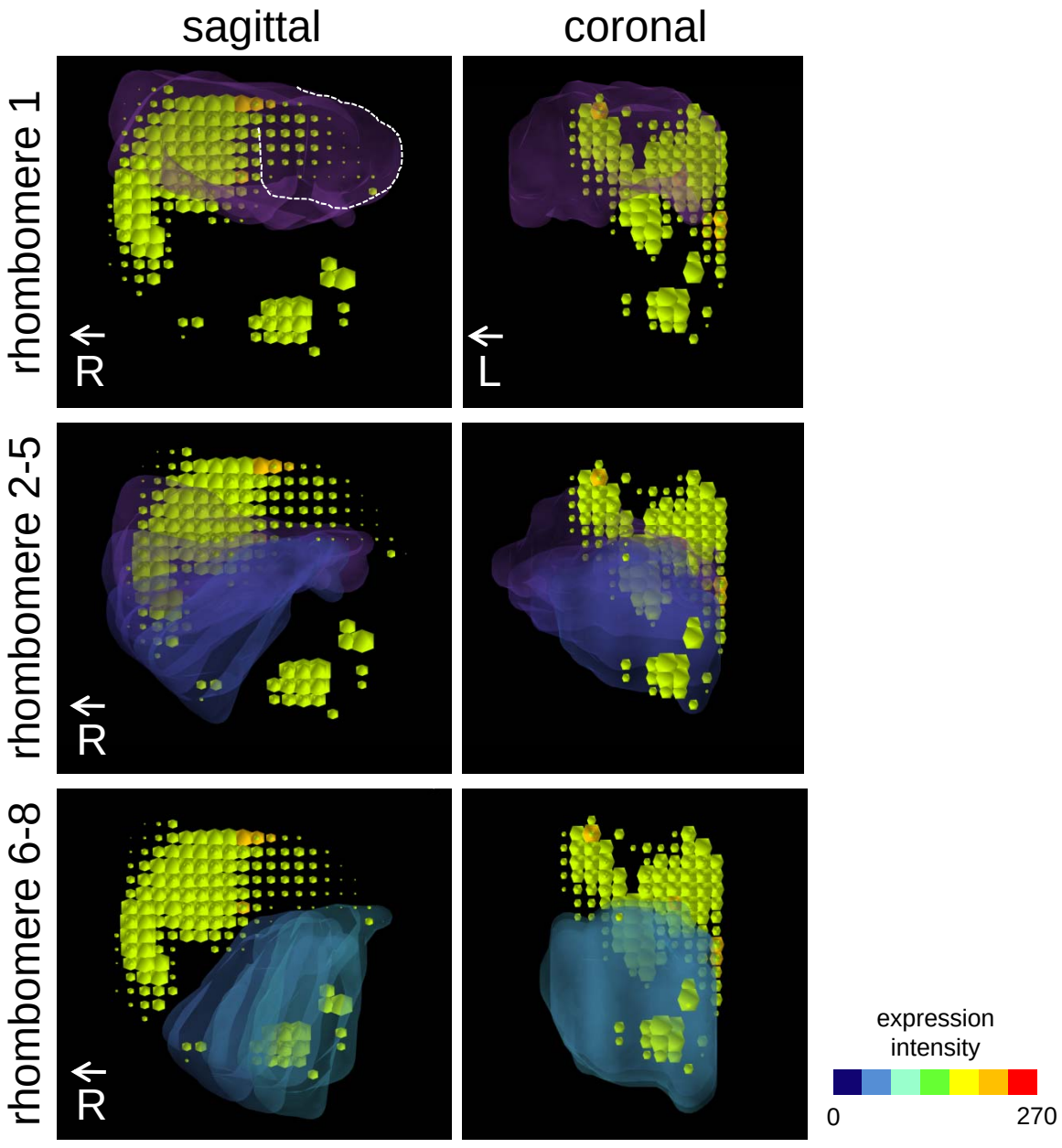
SHH-subgroup gene: *Pbx3,* Pre B-cell leukemia factor 3 (E11.5)





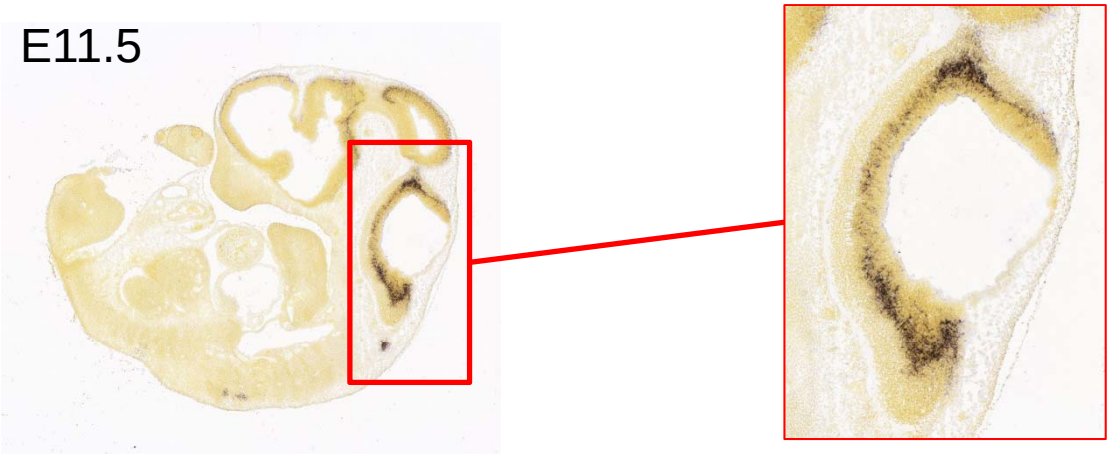
SHH-subgroup gene: *Pbx3,* Pre B-cell leukemia factor 3 (E15.5)





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

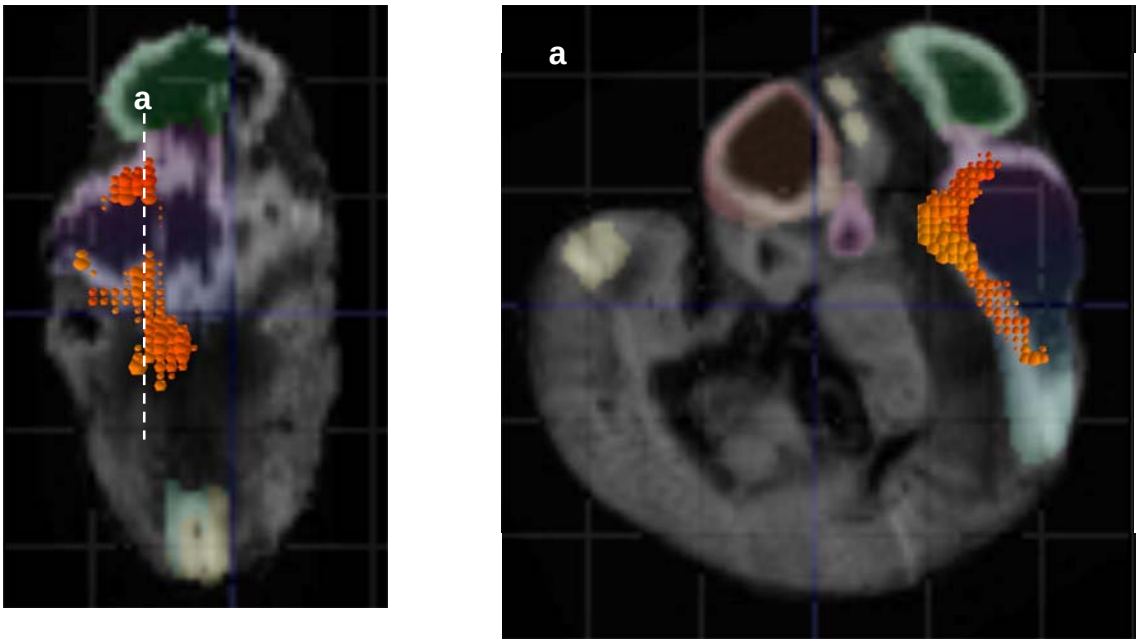
E11.5

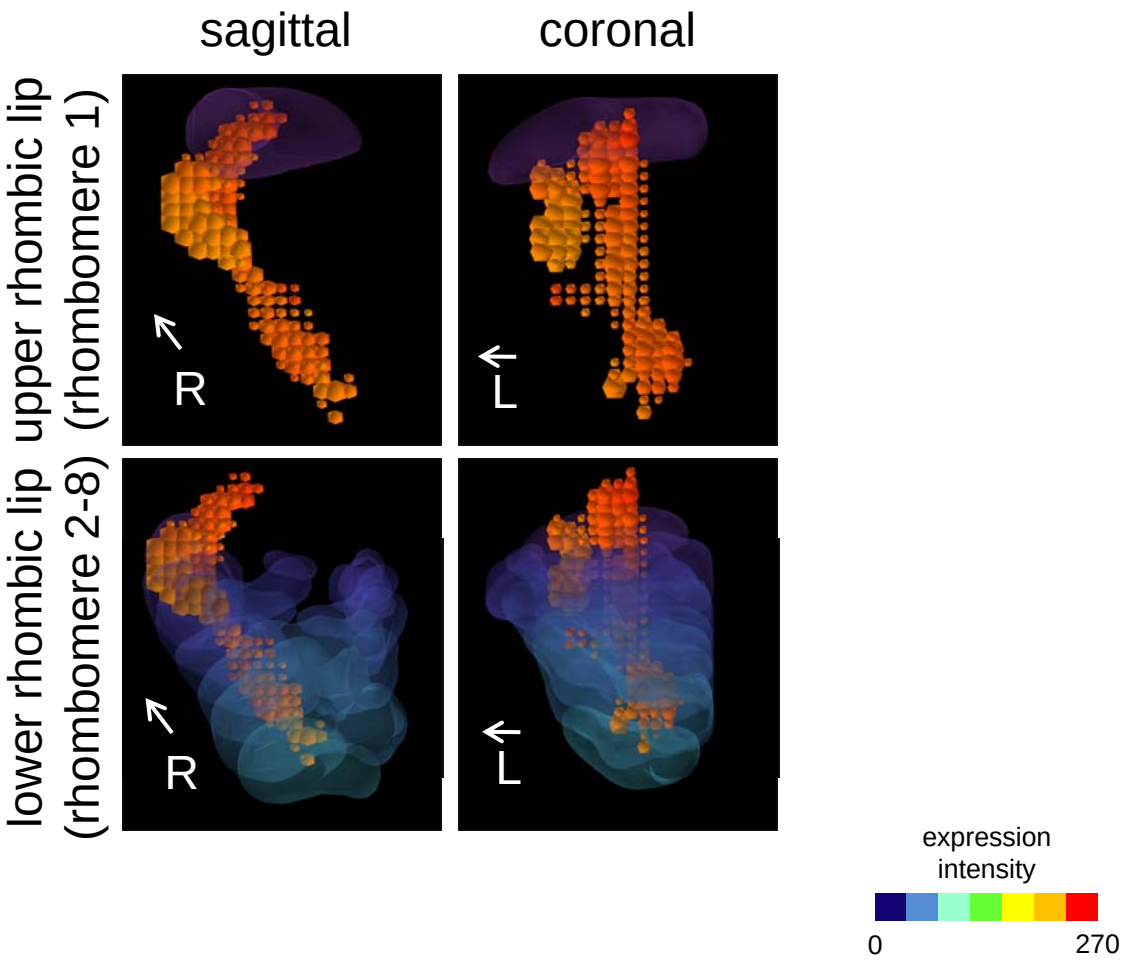


E13.5

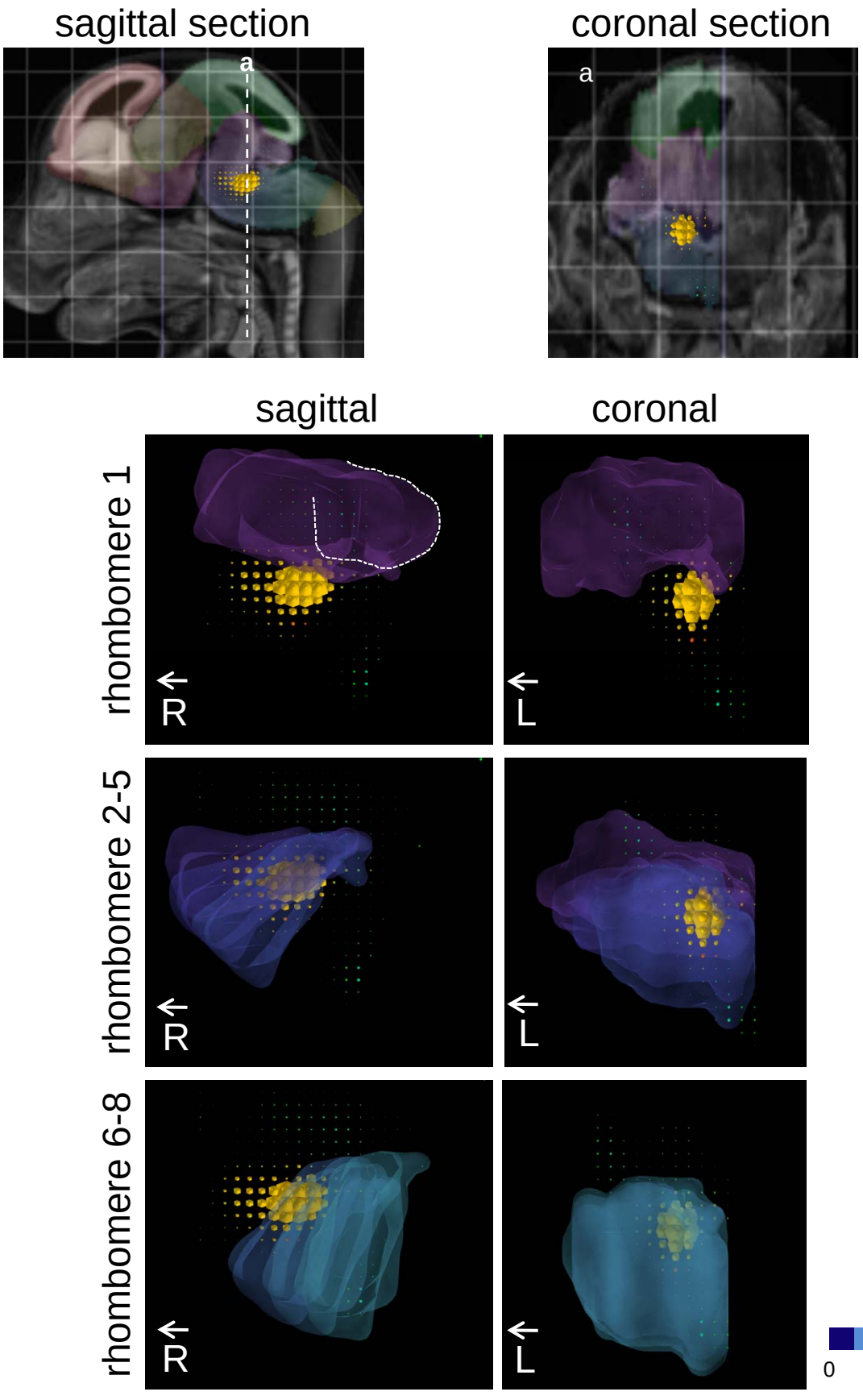
E15.5

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





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

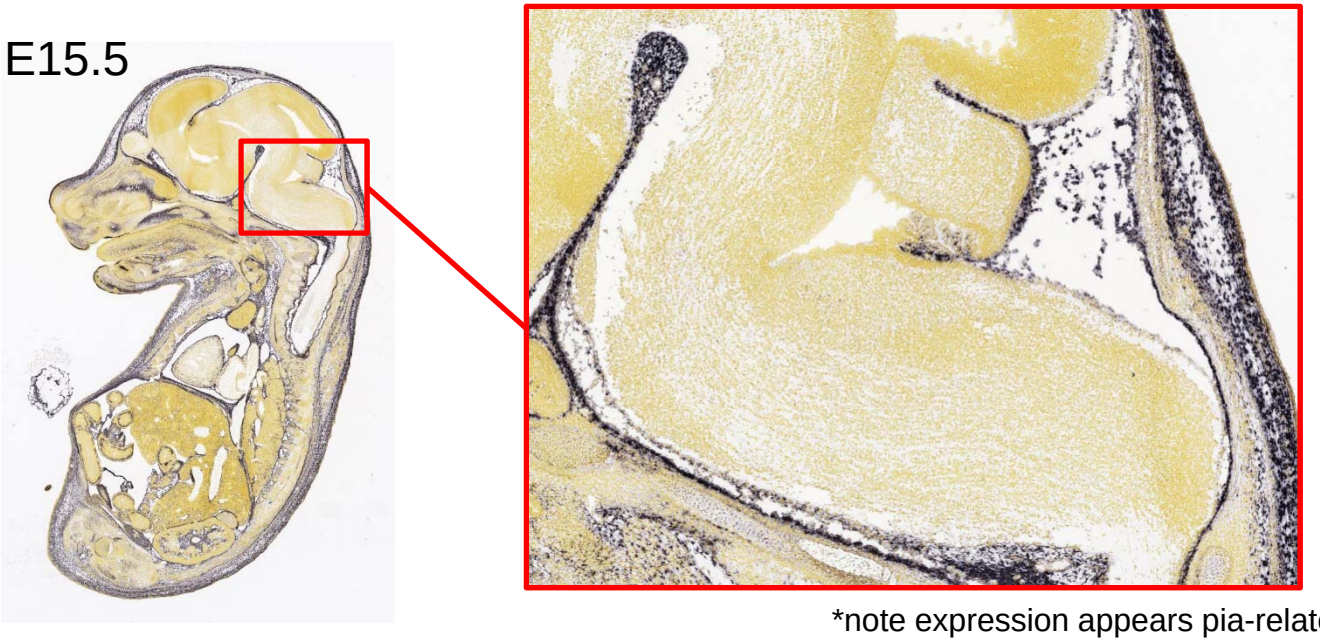


SHH-subgroup gene: *Dcn*, Decorin (*in situ*)*

E11.5

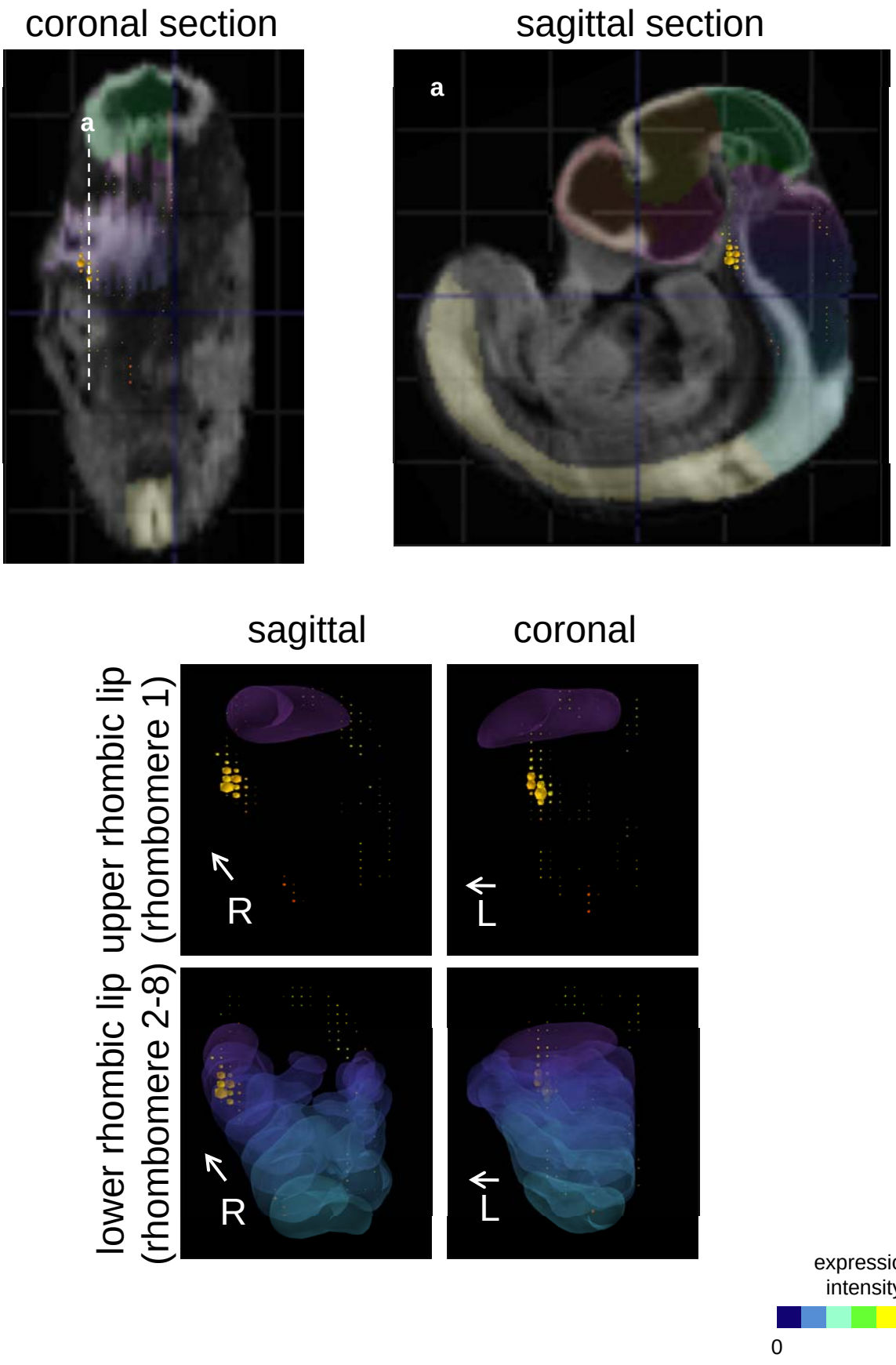
E13.5

E15.5

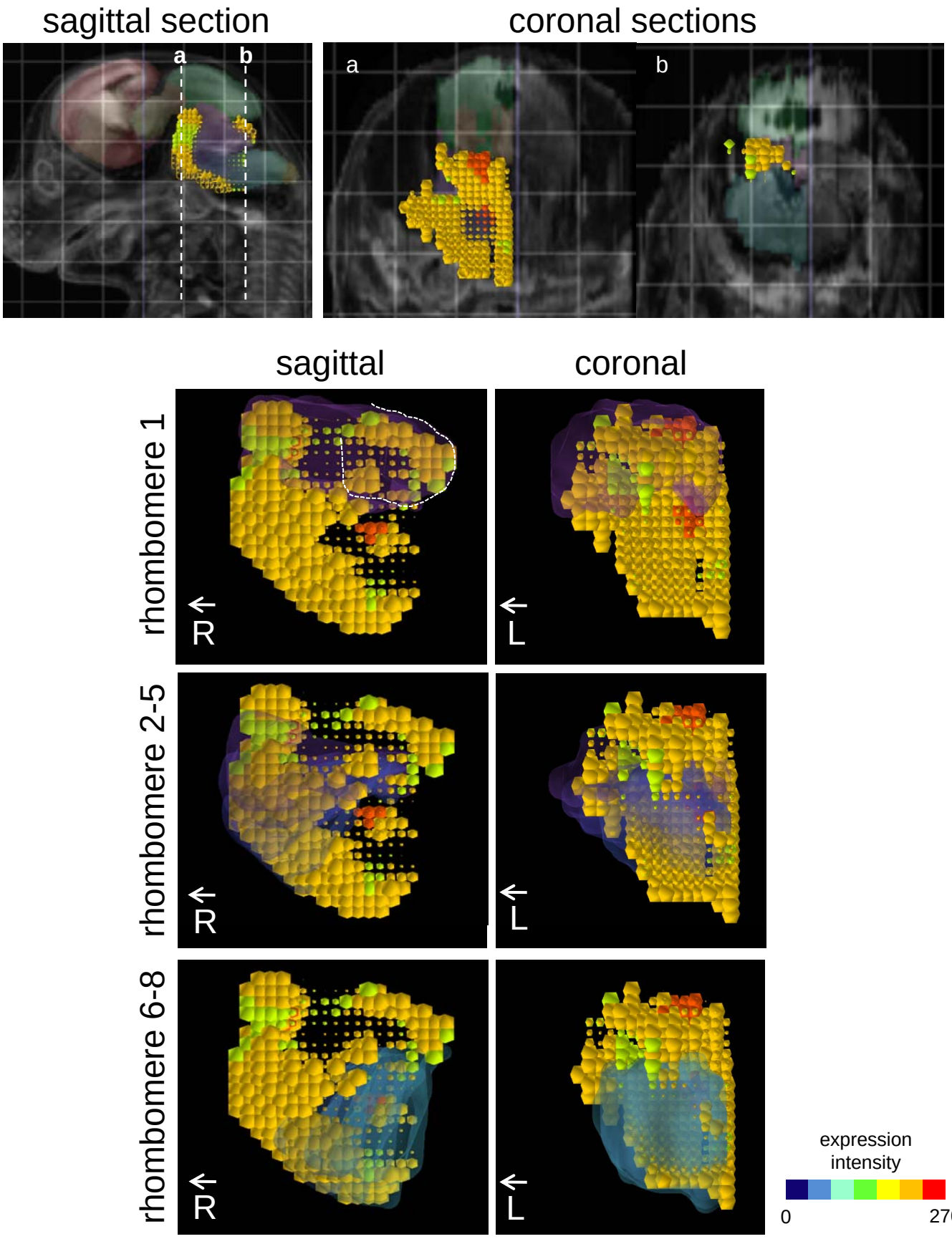


*note expression appears pia-related

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



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

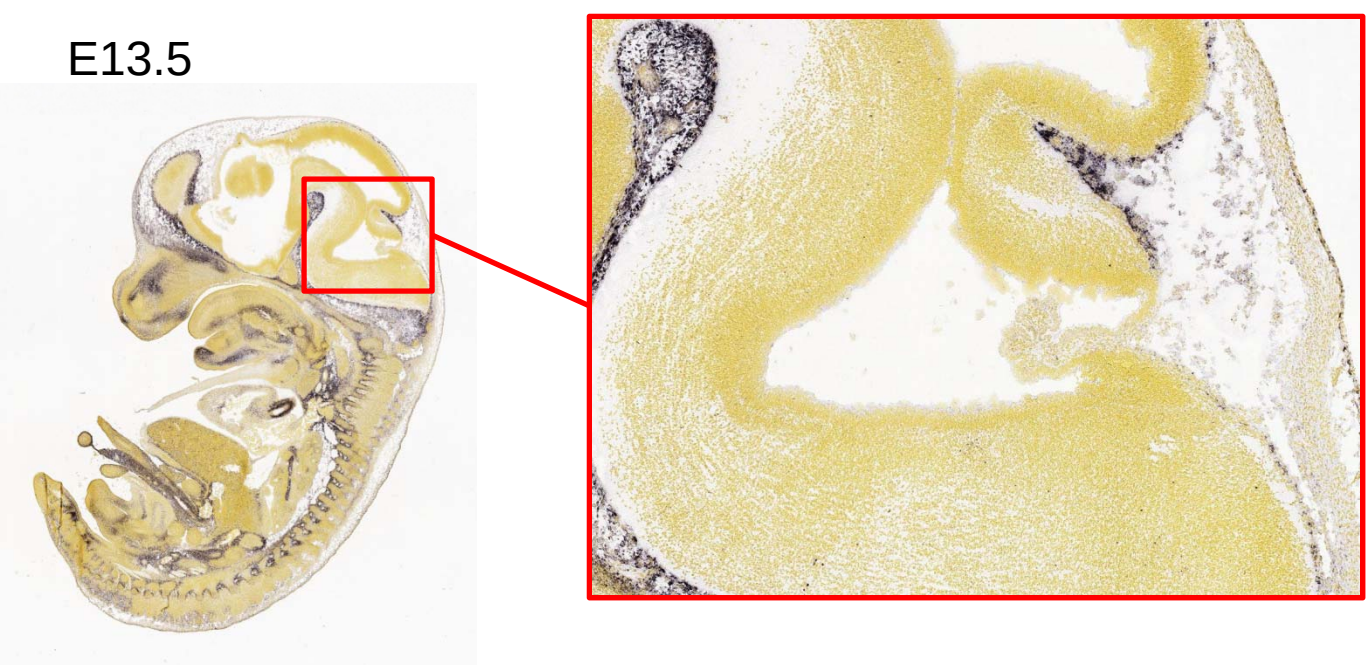


SHH-subgroup gene: *Cxcl12*, chemokine c-x-c ligand 12 (E11.5)*

E11.5

not available

E13.5

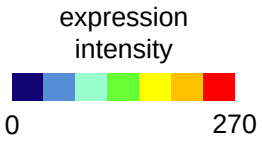


E15.5

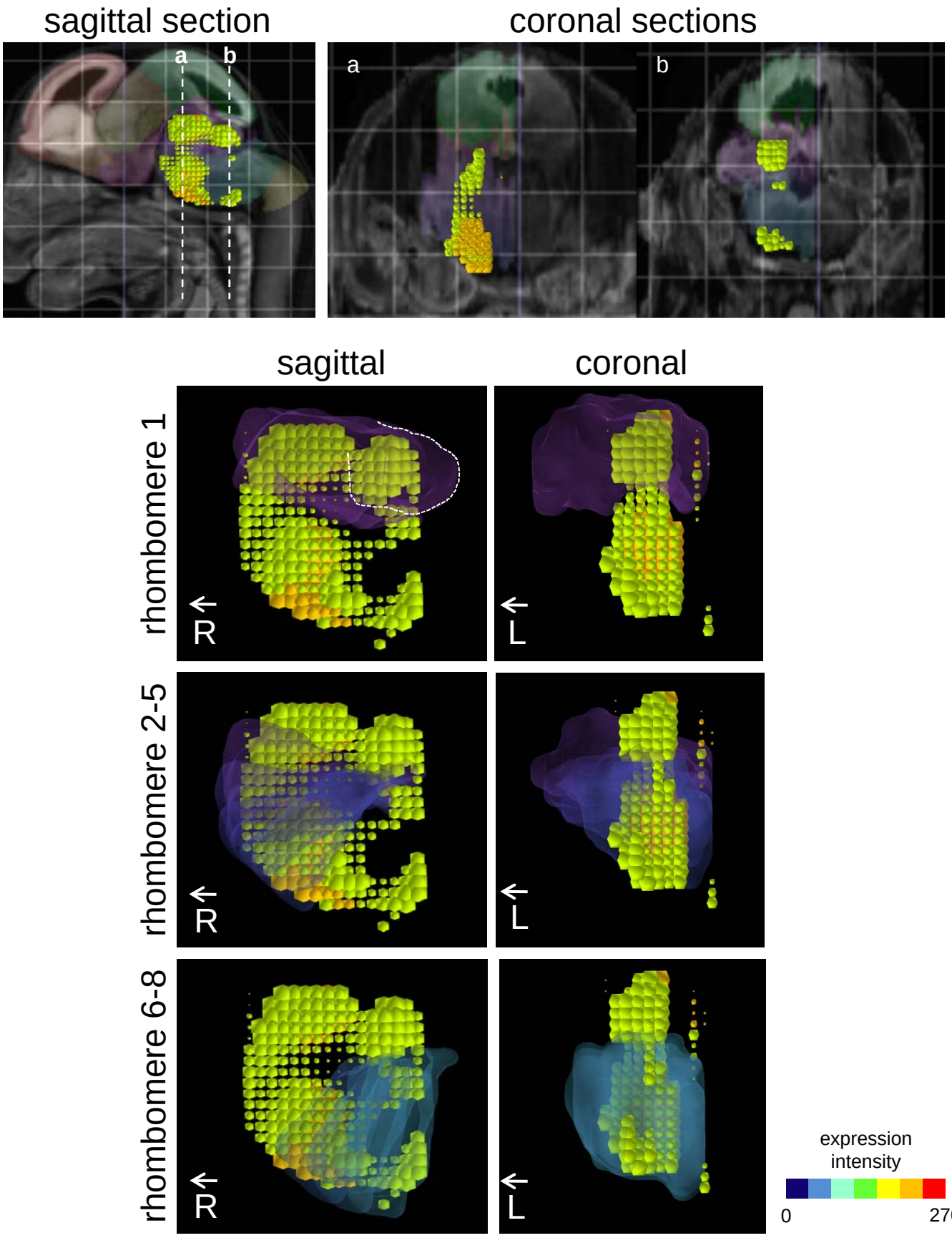
*note expression appears pia-related

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

not available

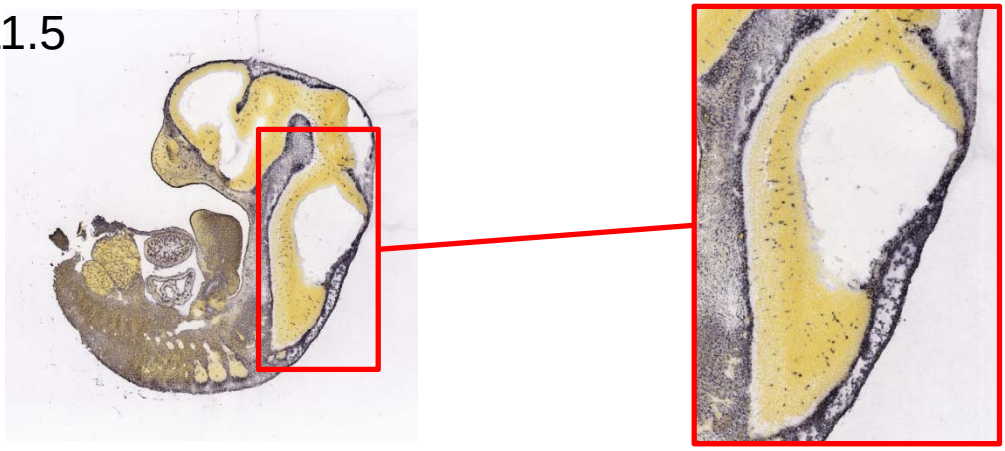


SHH-subgroup gene: *Cxcl12*, chemokine c-x-c ligand 12 (E15.5)

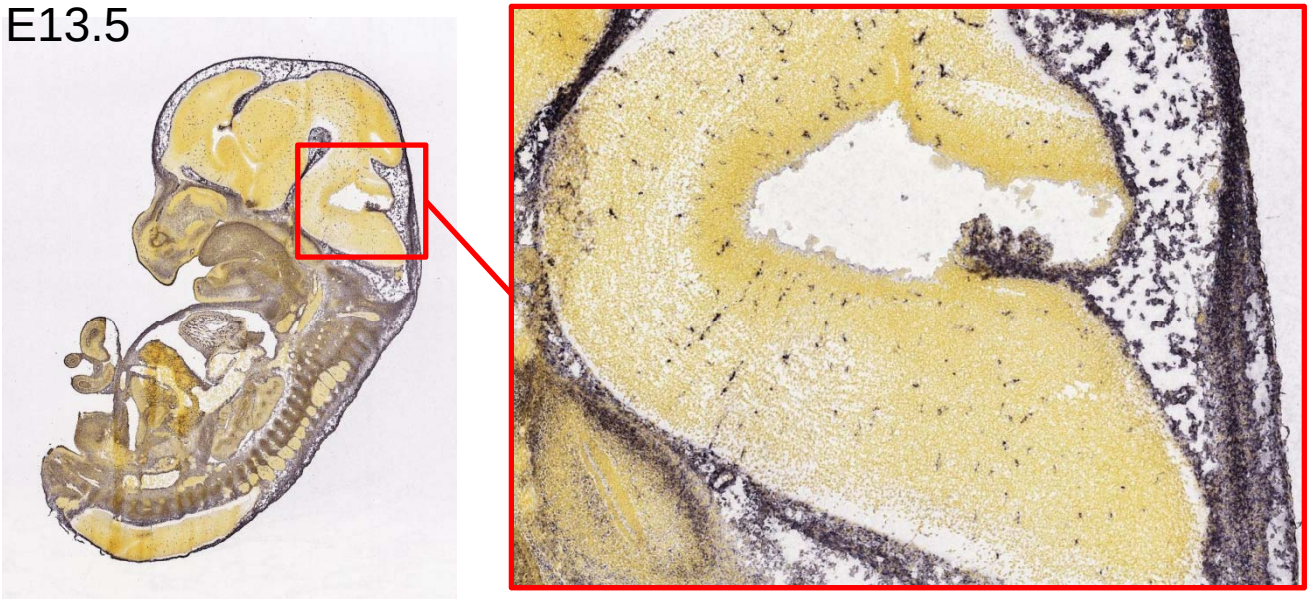


SHH-subgroup gene: *Igf2*, Insulin growth factor 2 (*in situ*)*

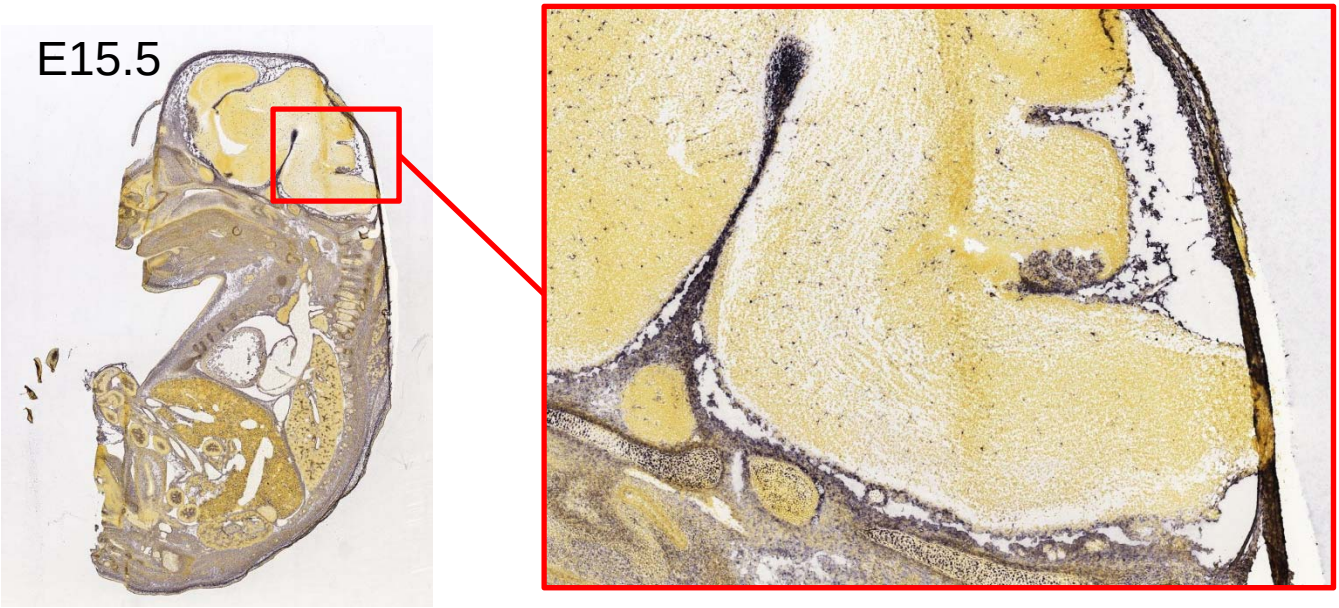
E11.5



E13.5

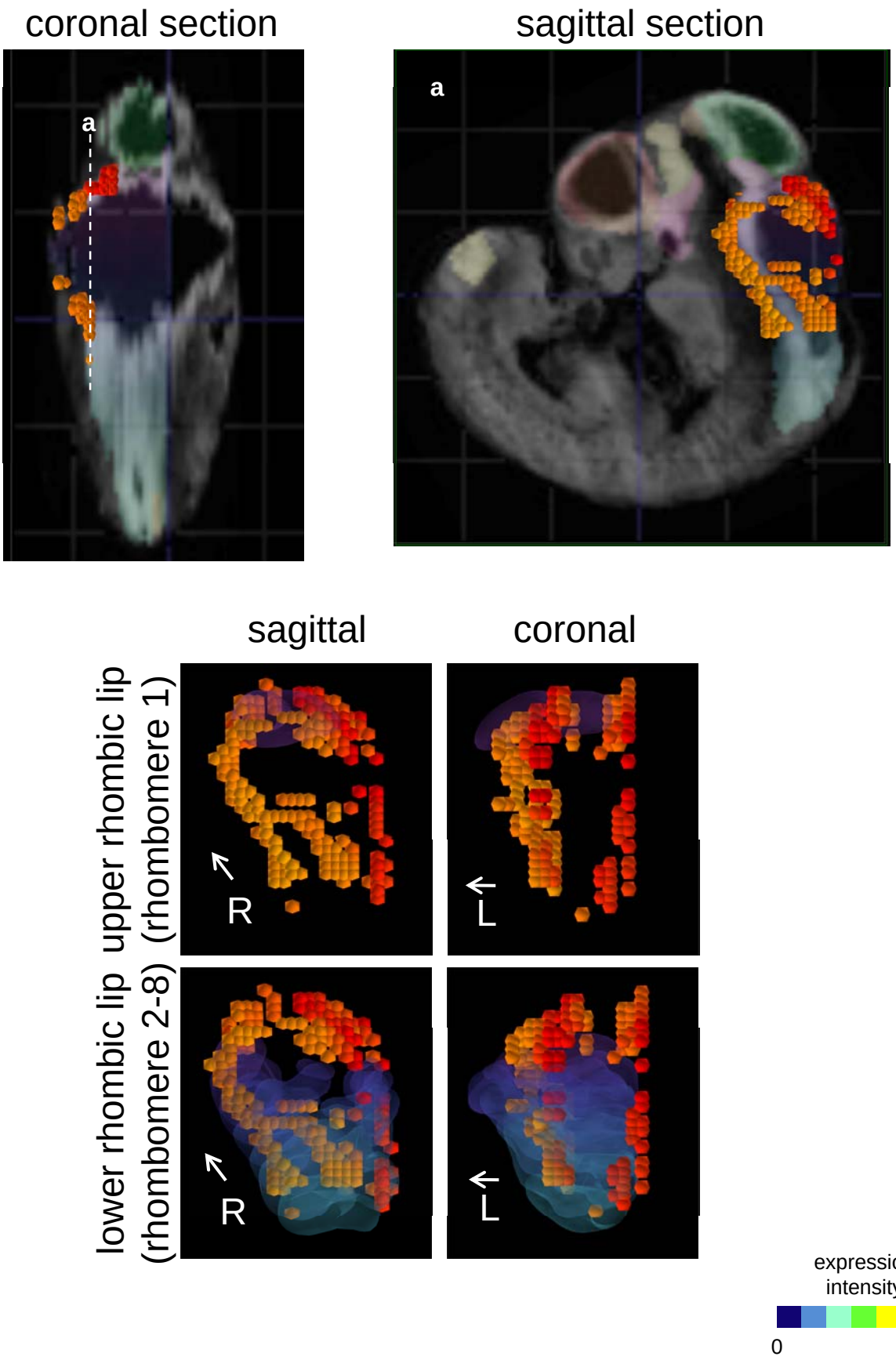


E15.5

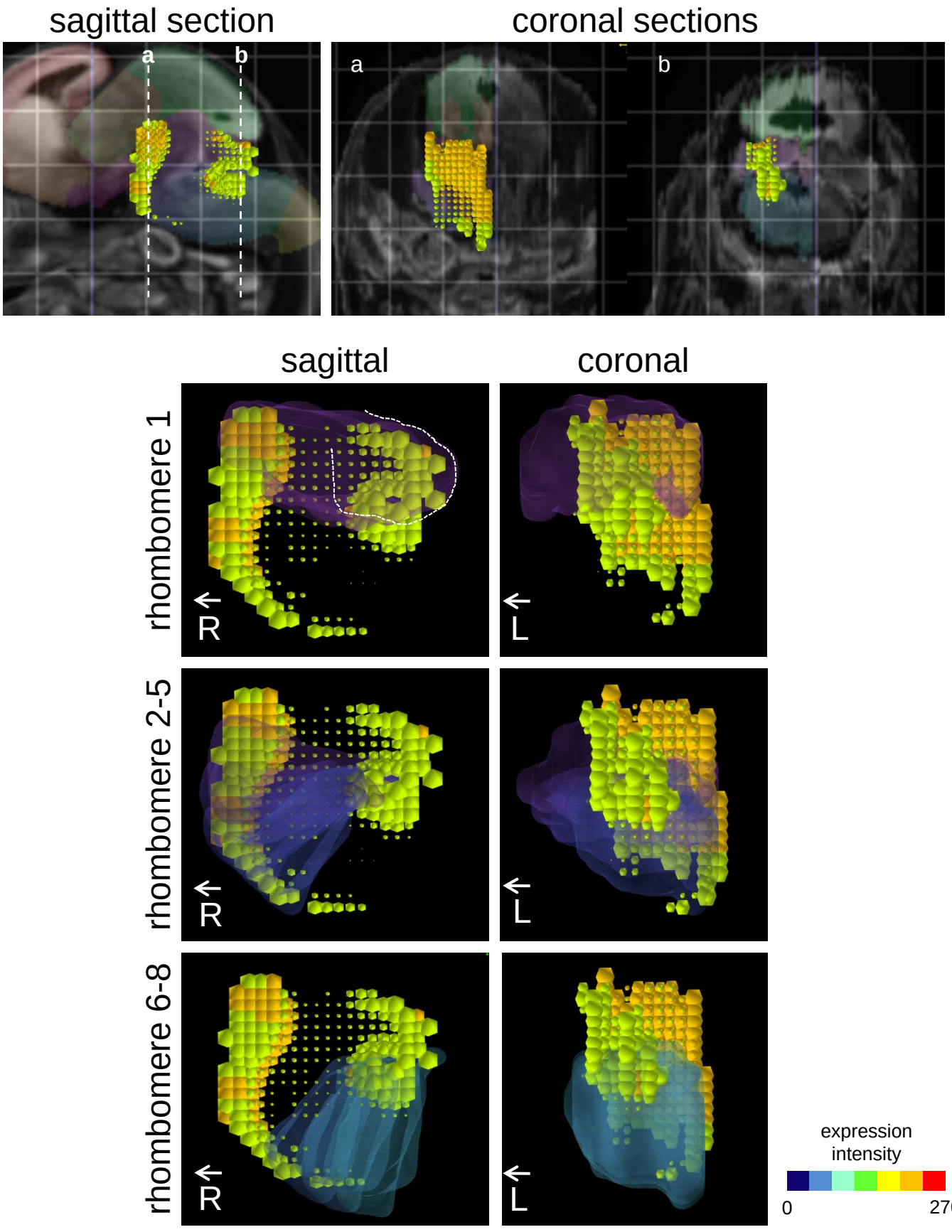


*note expression appears pia-related

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



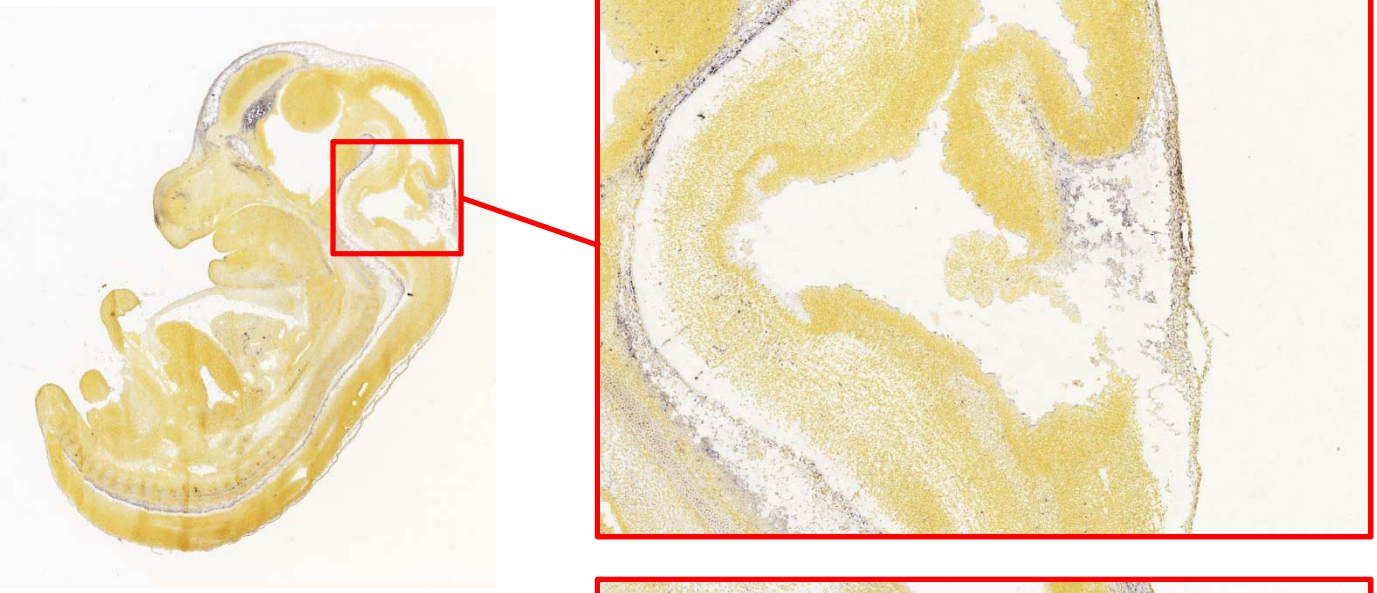
SHH-subgroup gene: *Igf2*, Insulin growth factor 2 (E15.5)



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

E11.5

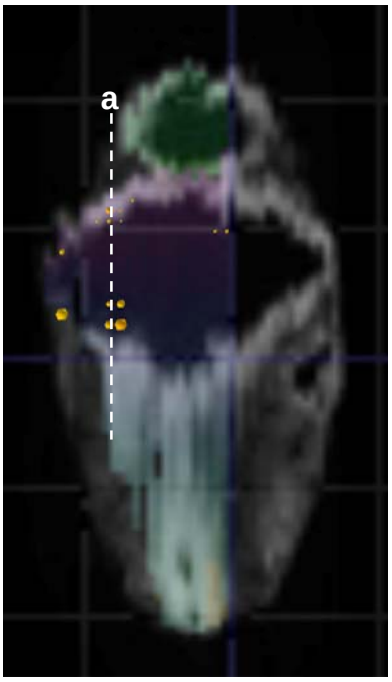
E13.5



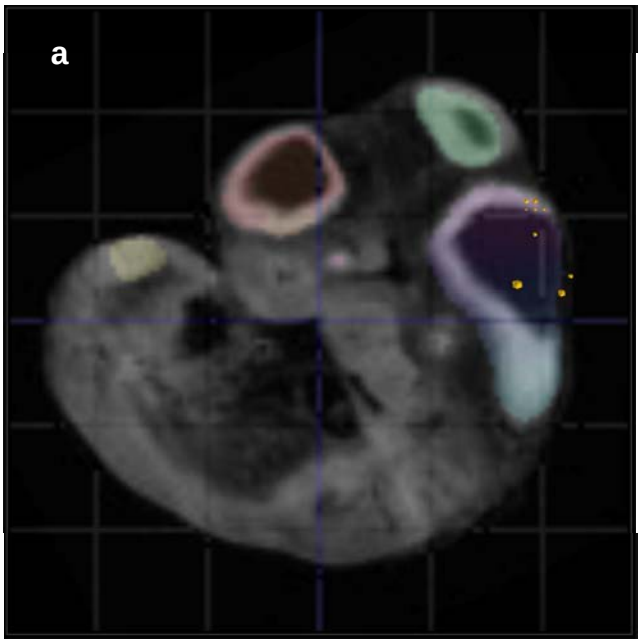
E15.5

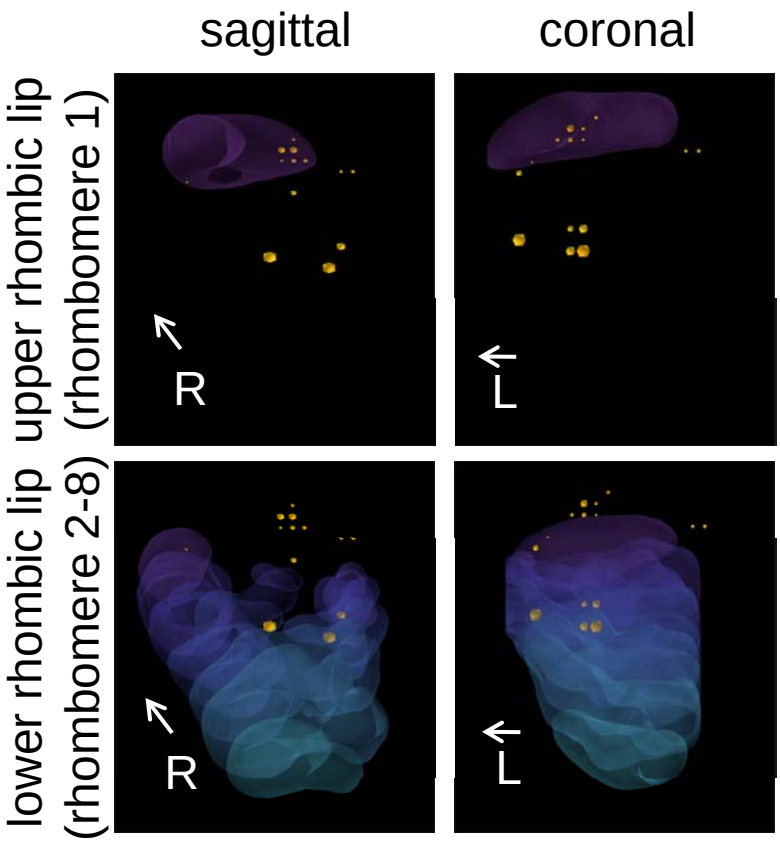
SHH-subgroup gene: *Apod*, Apolipoprotein D (E11.5)

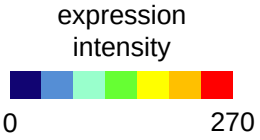
coronal section



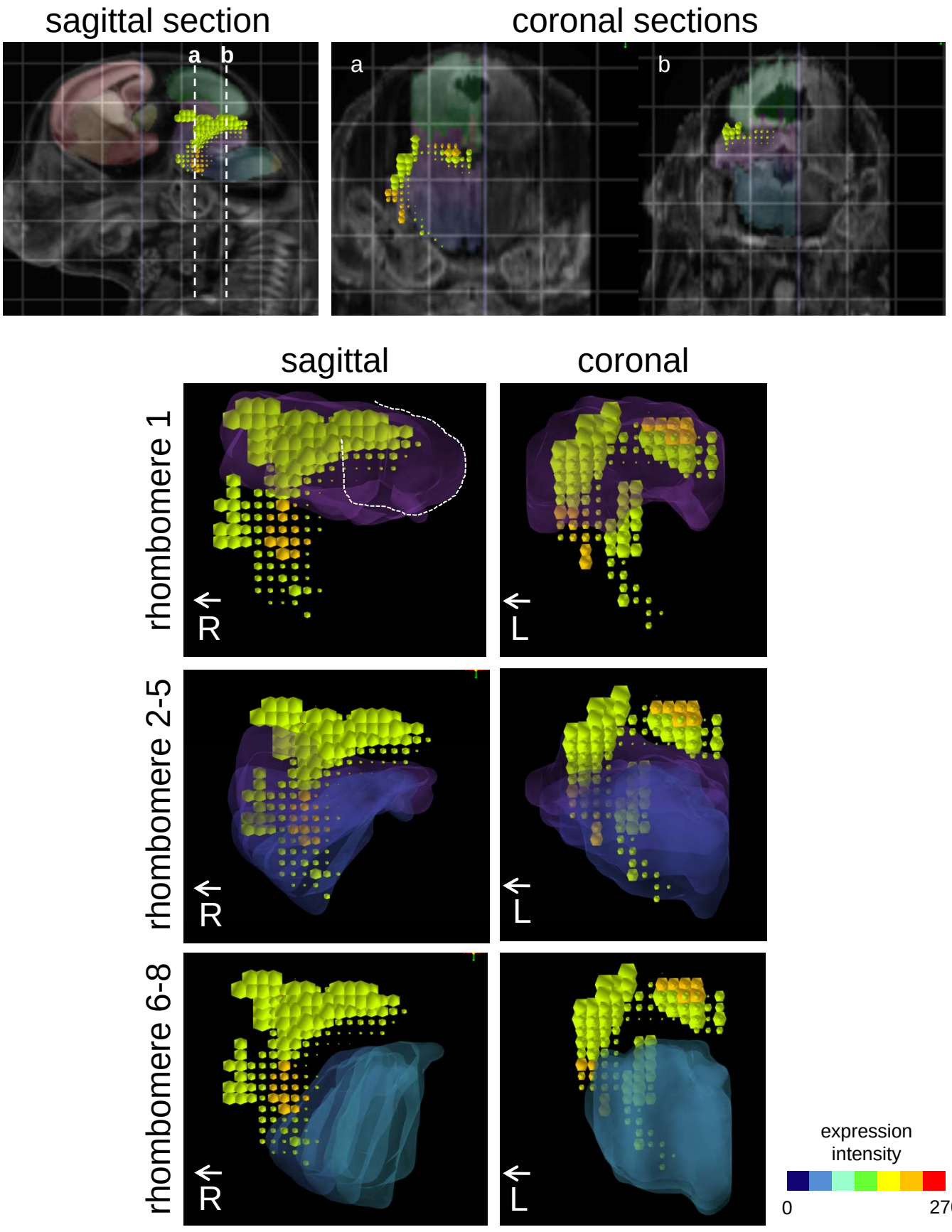
sagittal section





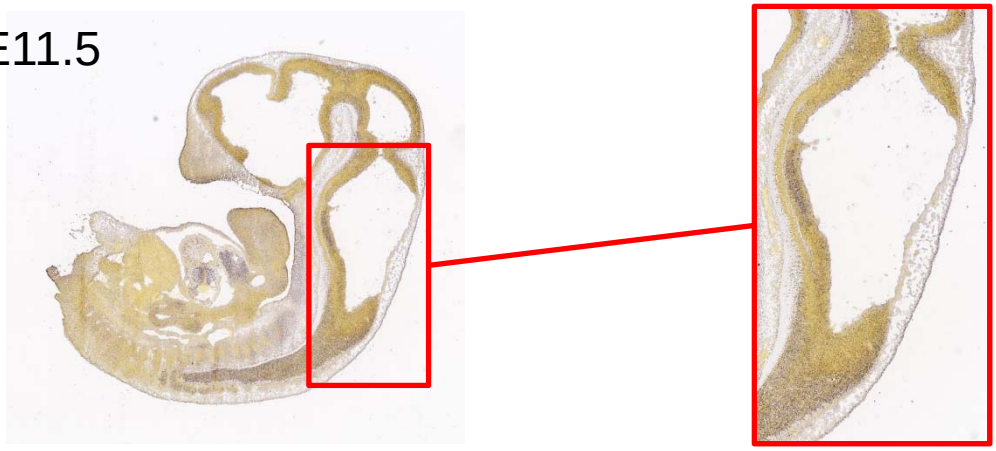


SHH-subgroup gene: *Apod*, Apolipoprotein D (E15.5)

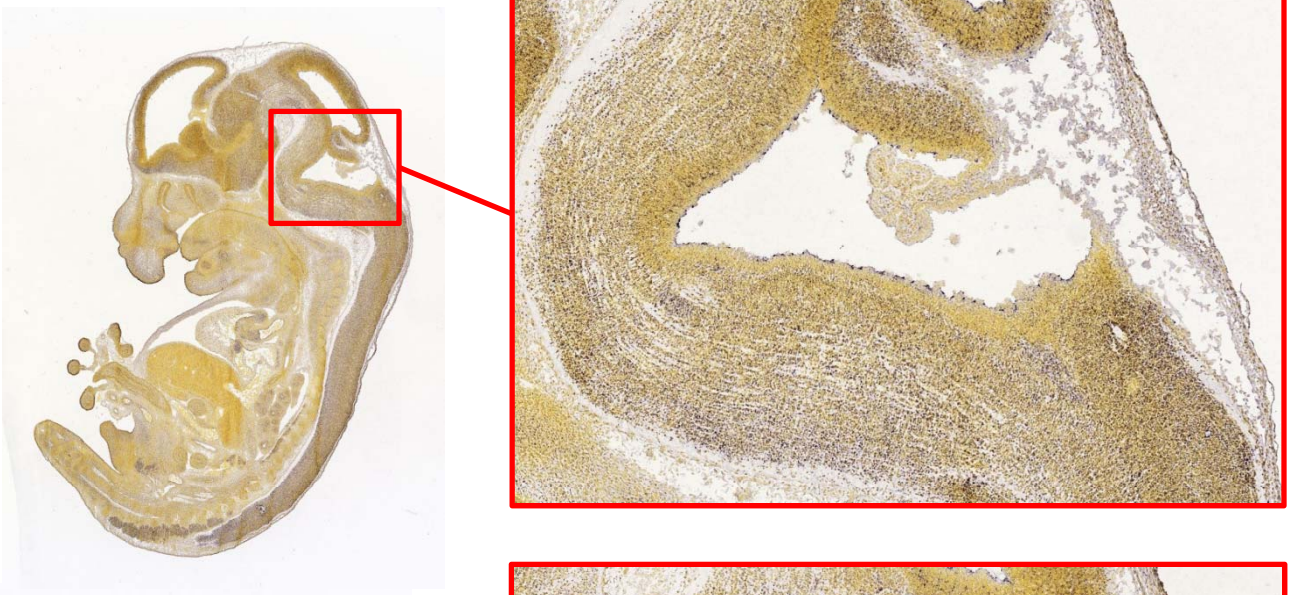


SHH-subgroup gene: *Csnk1e*, Casein kinase 1 epsilon (*in situ*)

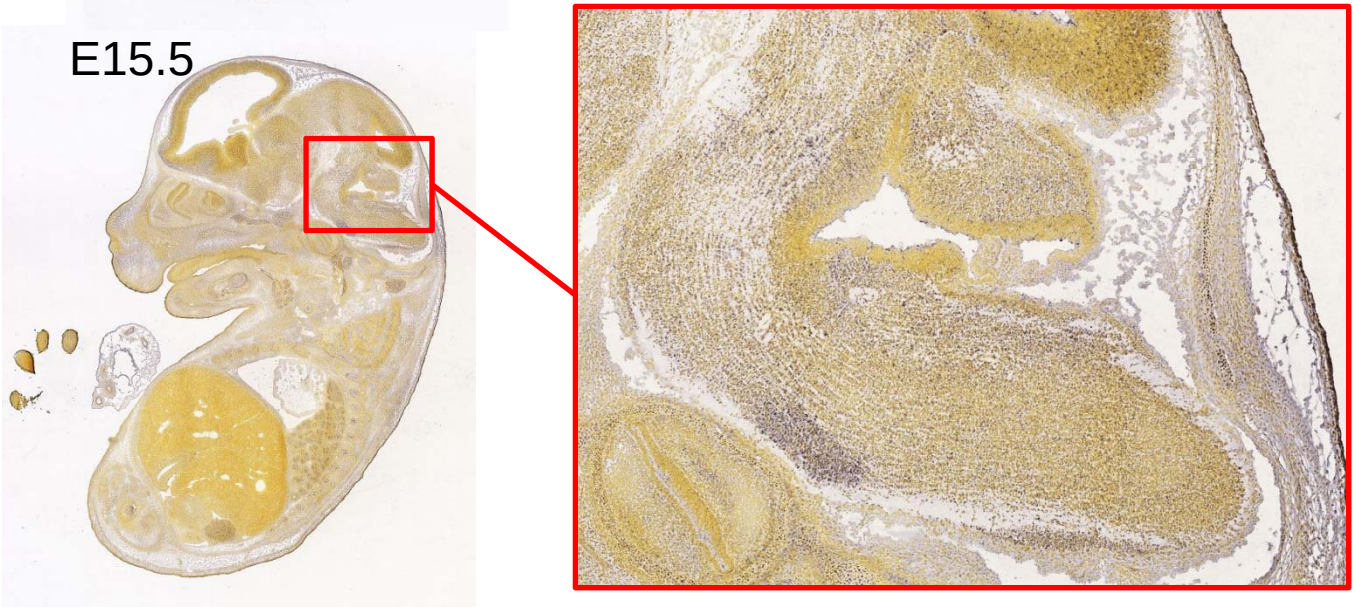
E11.5



E13.5

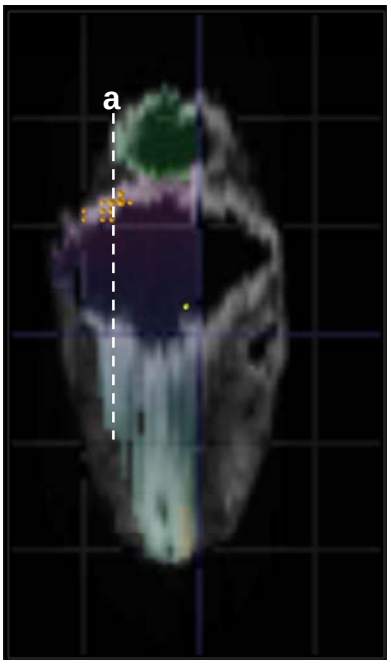


E15.5

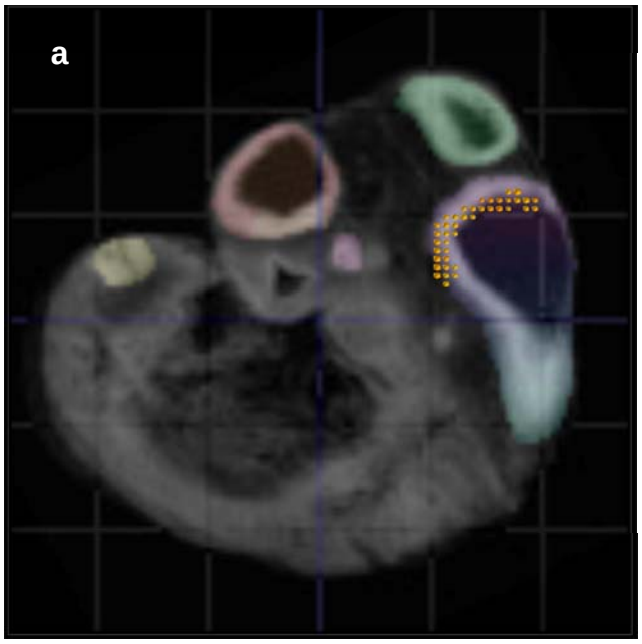


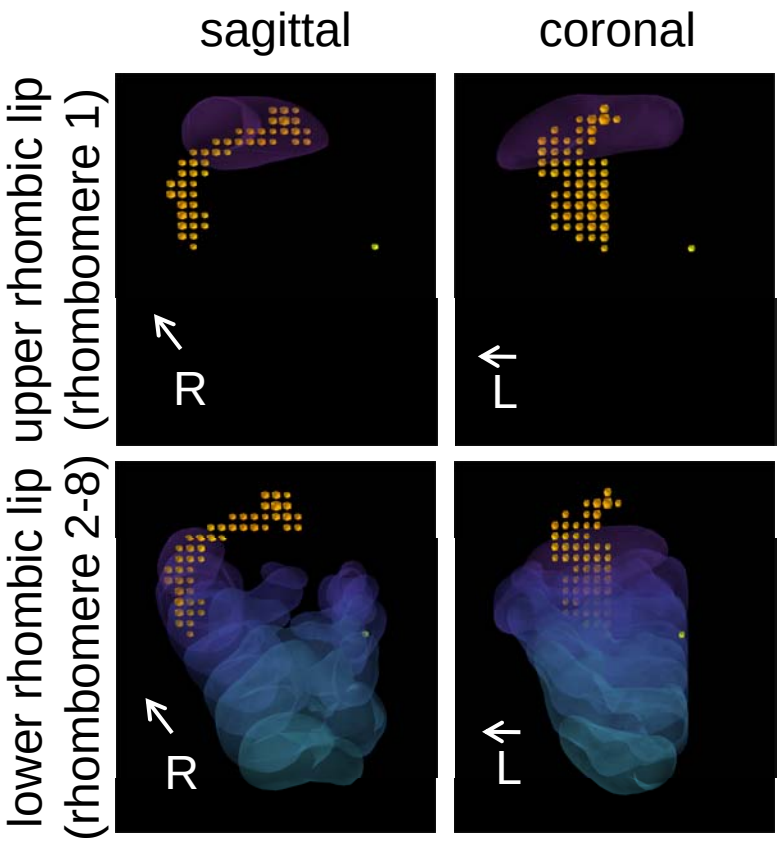
SHH-subgroup gene: *Csnk1e*, Casein kinase 1 epsilon (E11.5)

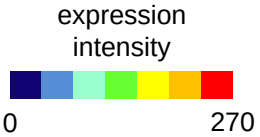
coronal section



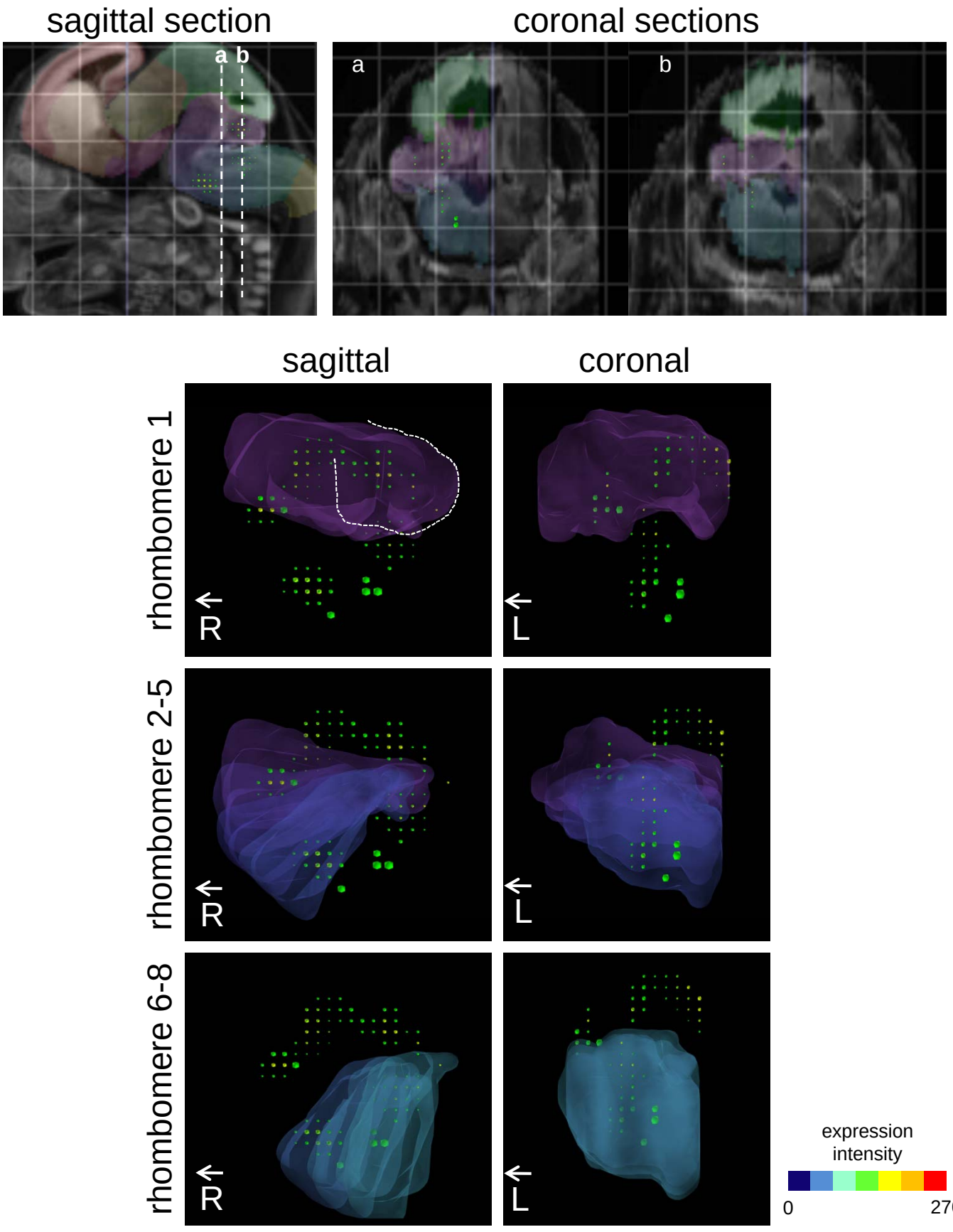
sagittal section





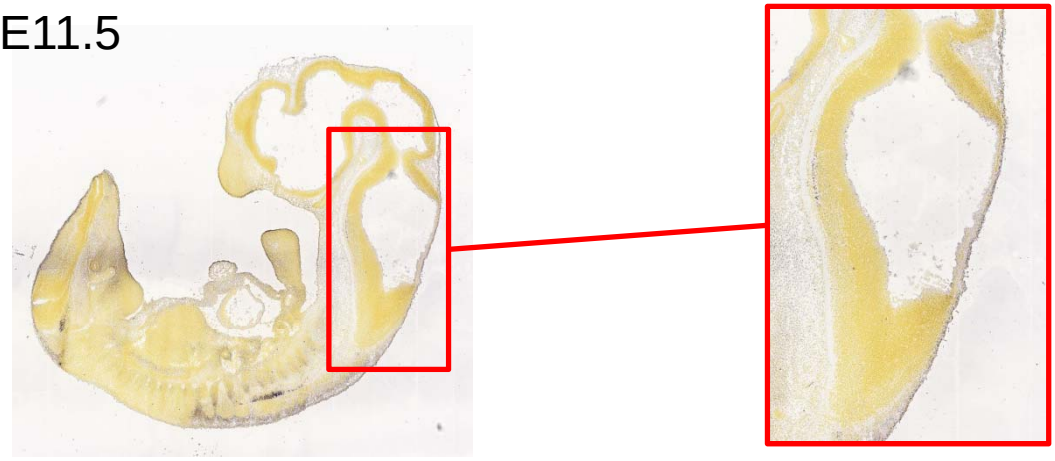


SHH-subgroup gene: *Csnk1e*, Casein kinase 1 epsilon (E15.5)



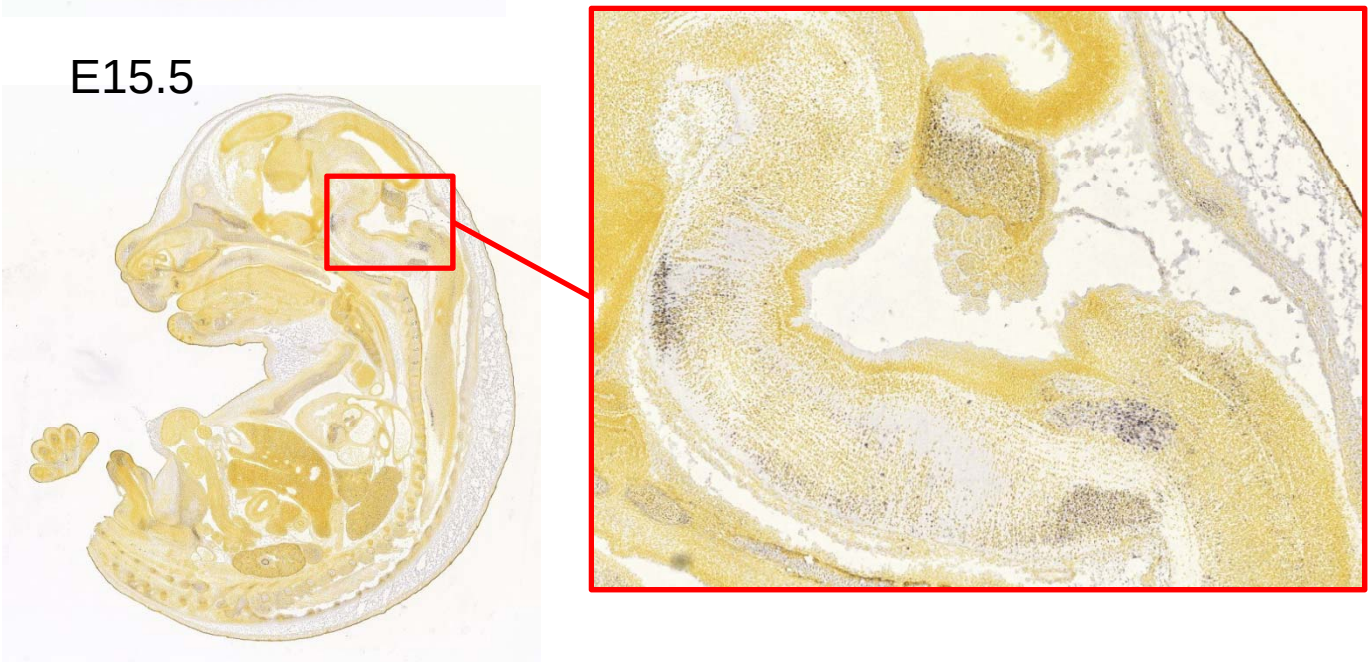
SHH-subgroup gene: *Unc5c*, Unc-5 homolog C (*in situ*)

E11.5

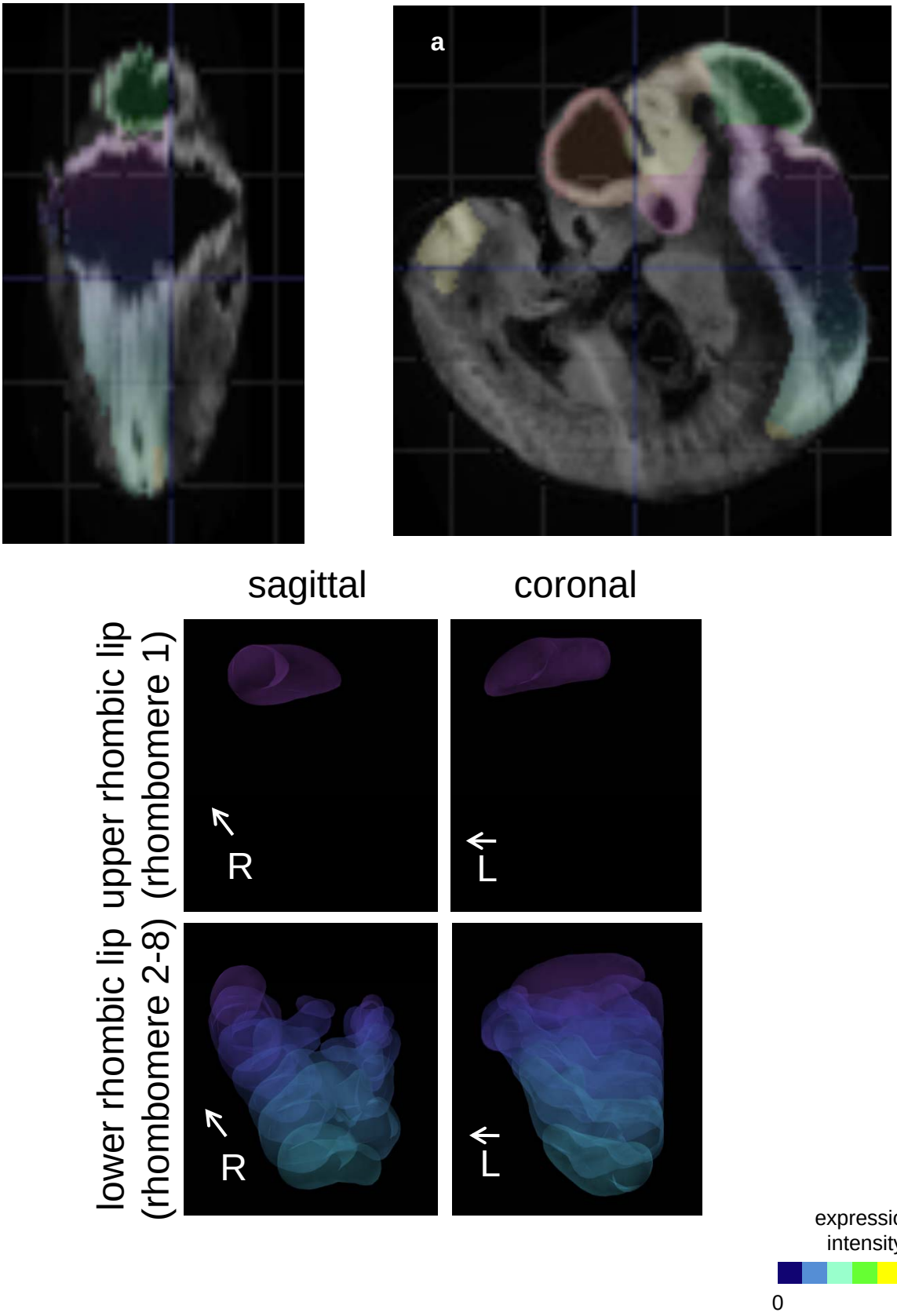


E13.5

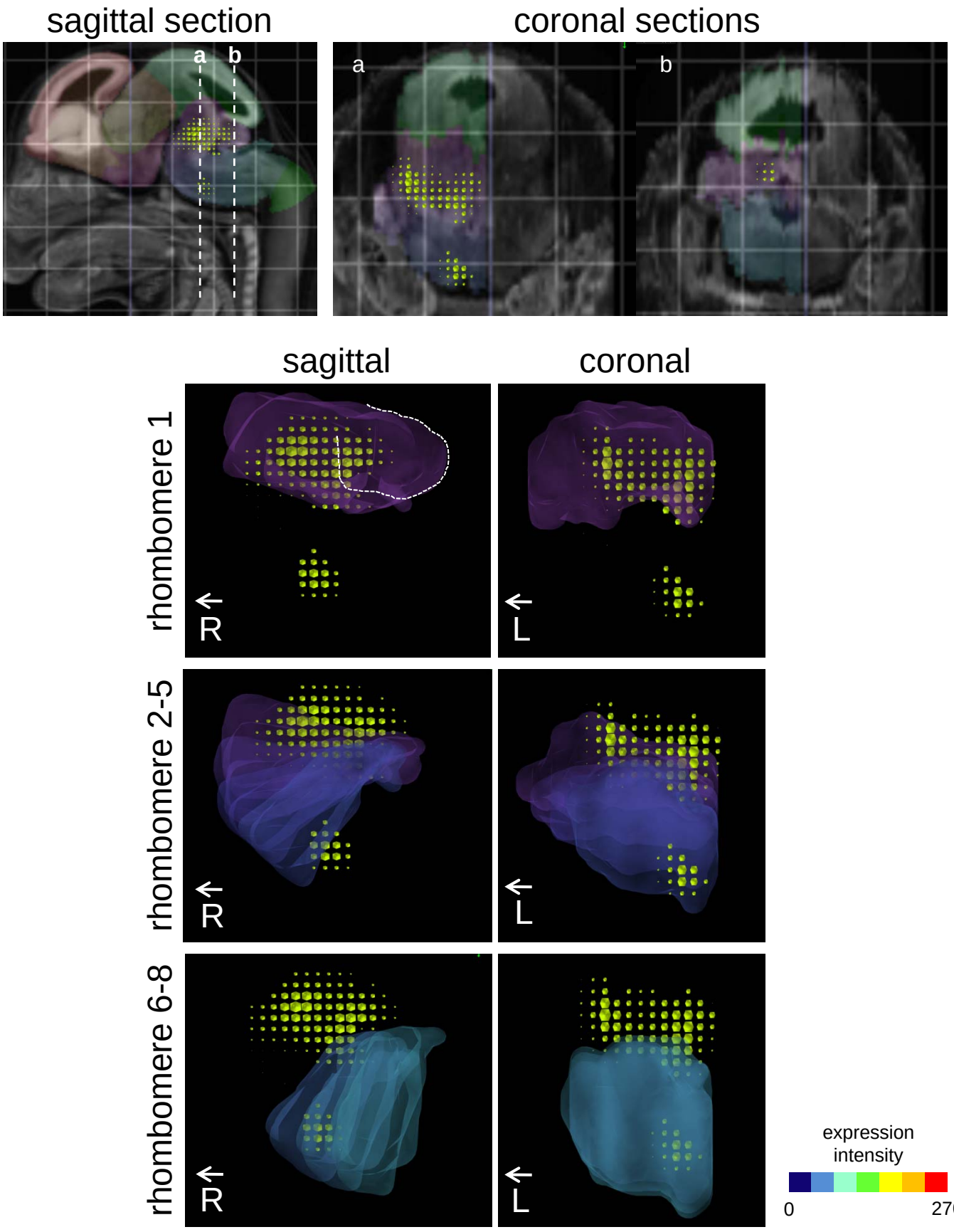
E15.5



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

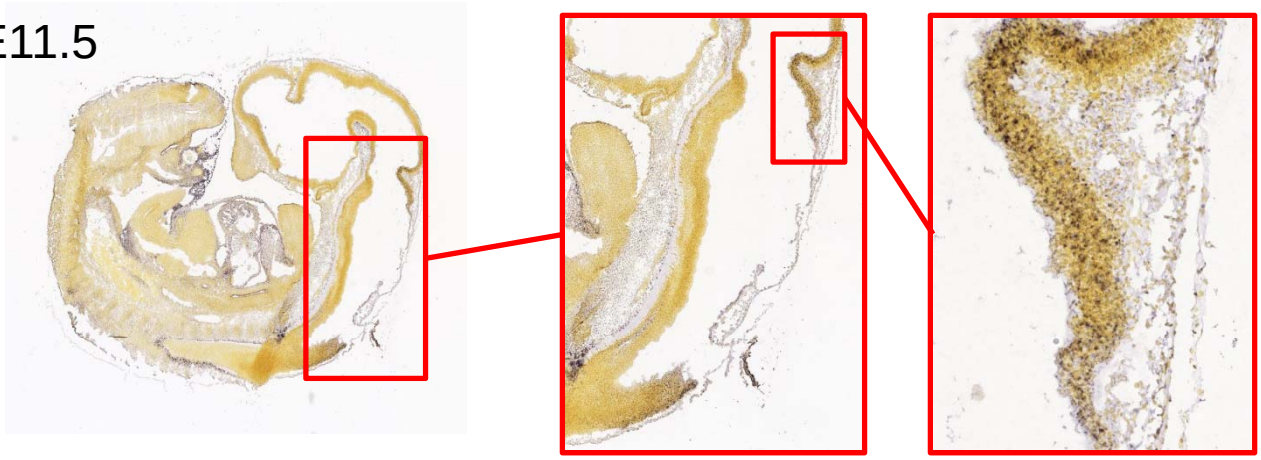


SHH-subgroup gene: *Unc5c*, Unc-5 homolog C (E15.5)

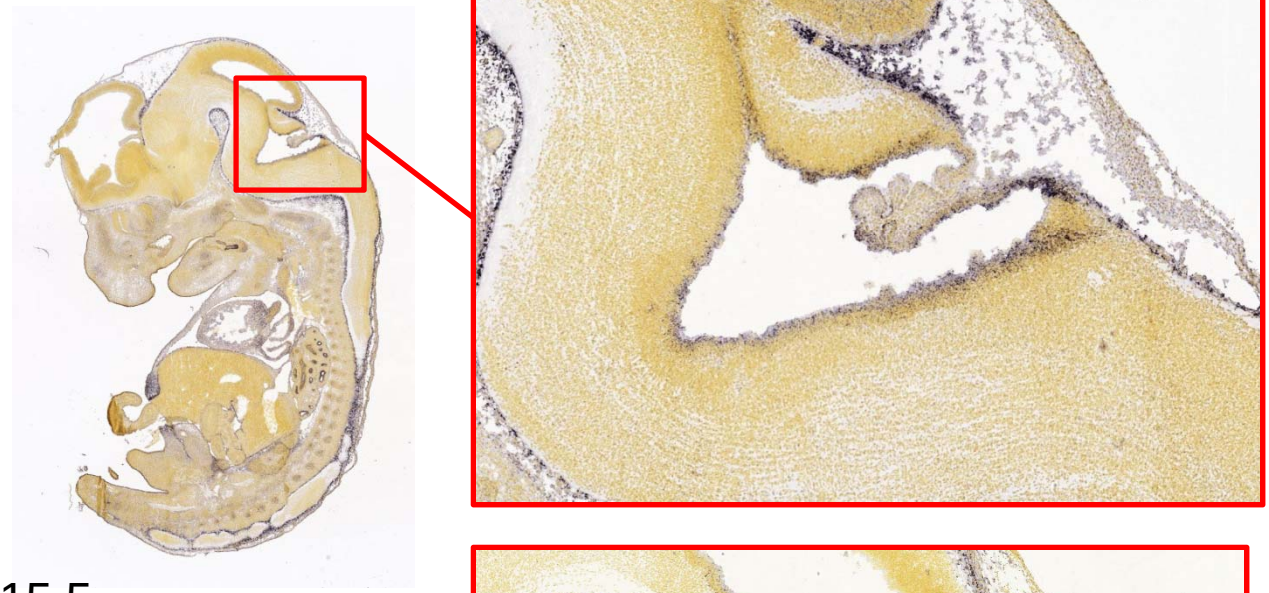


SHH-subgroup gene: *Col4a5*, Procollagen IVa5 (*in situ*)

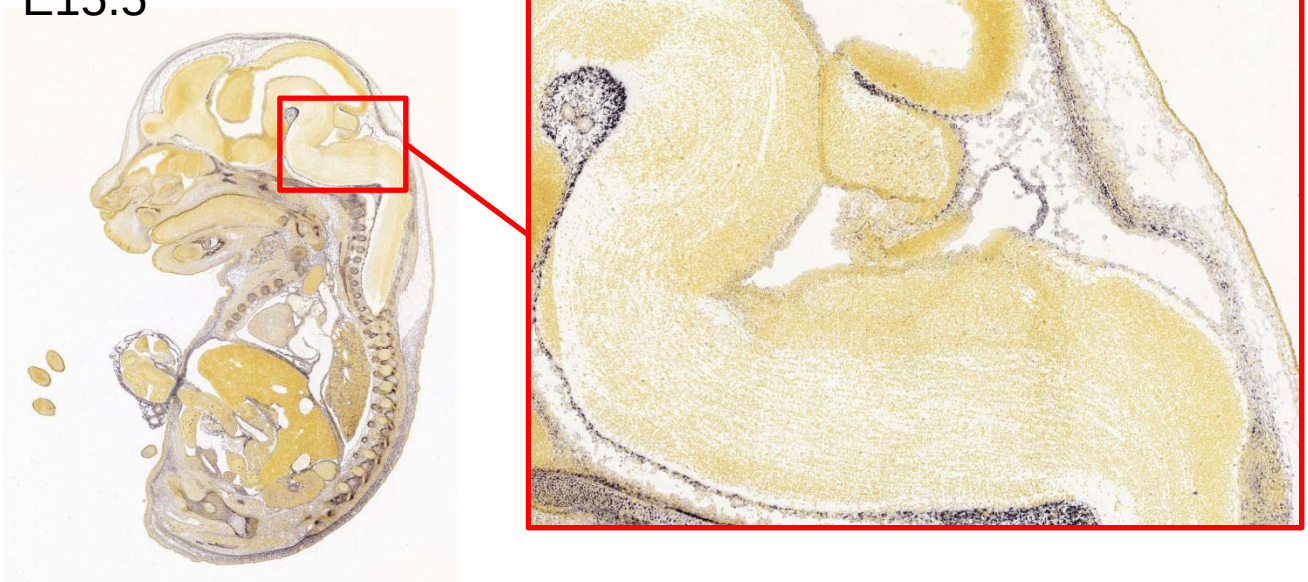
E11.5



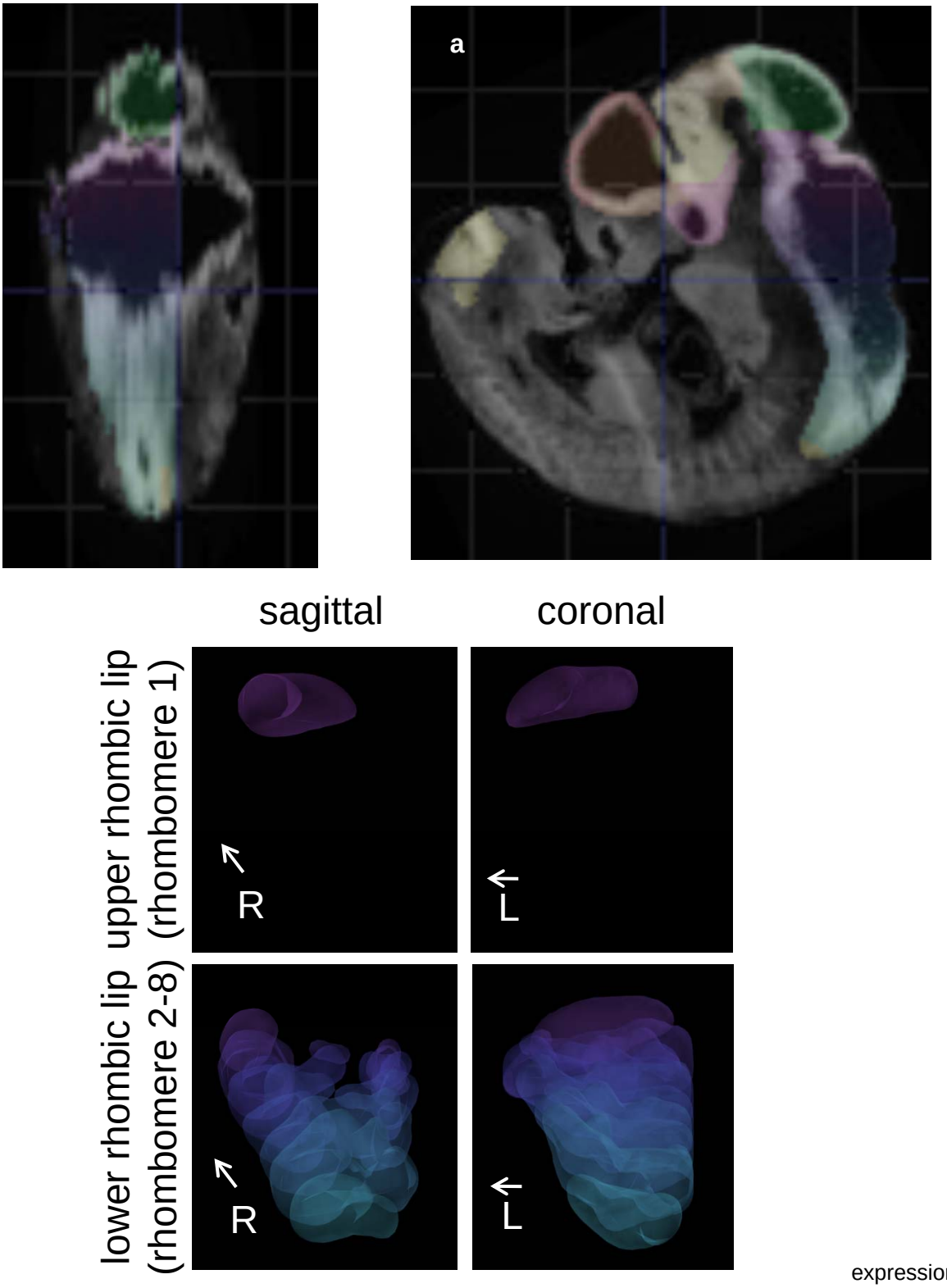
E13.5



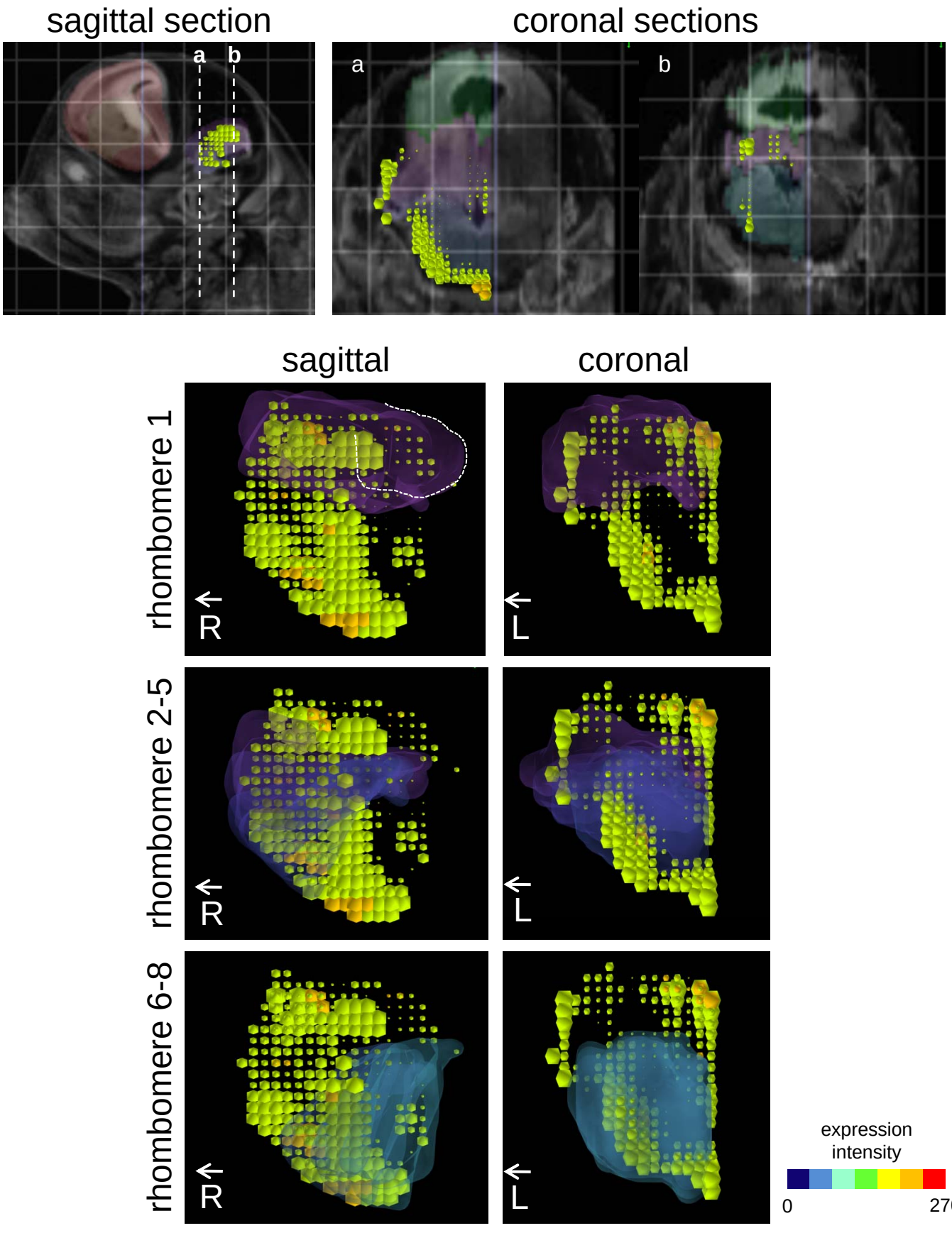
E15.5



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

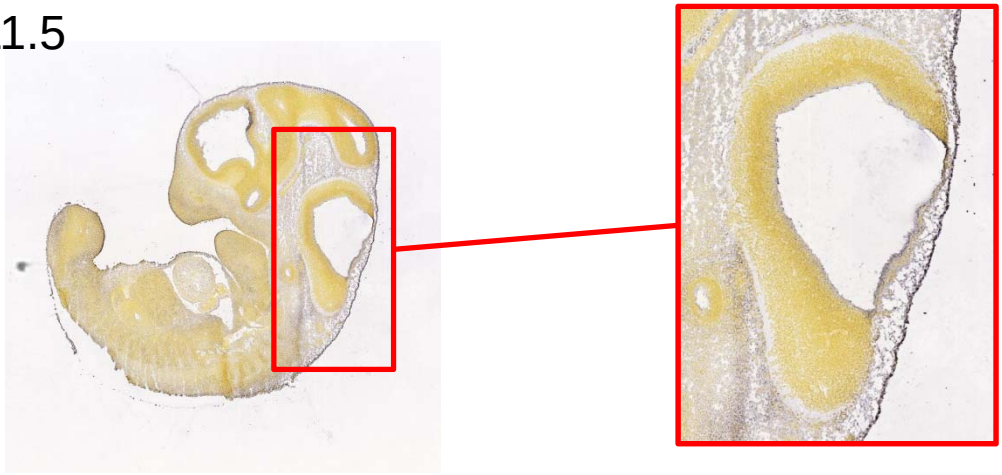


SHH-subgroup gene: *Col4a5*, Procollagen IVa5 (E15.5)

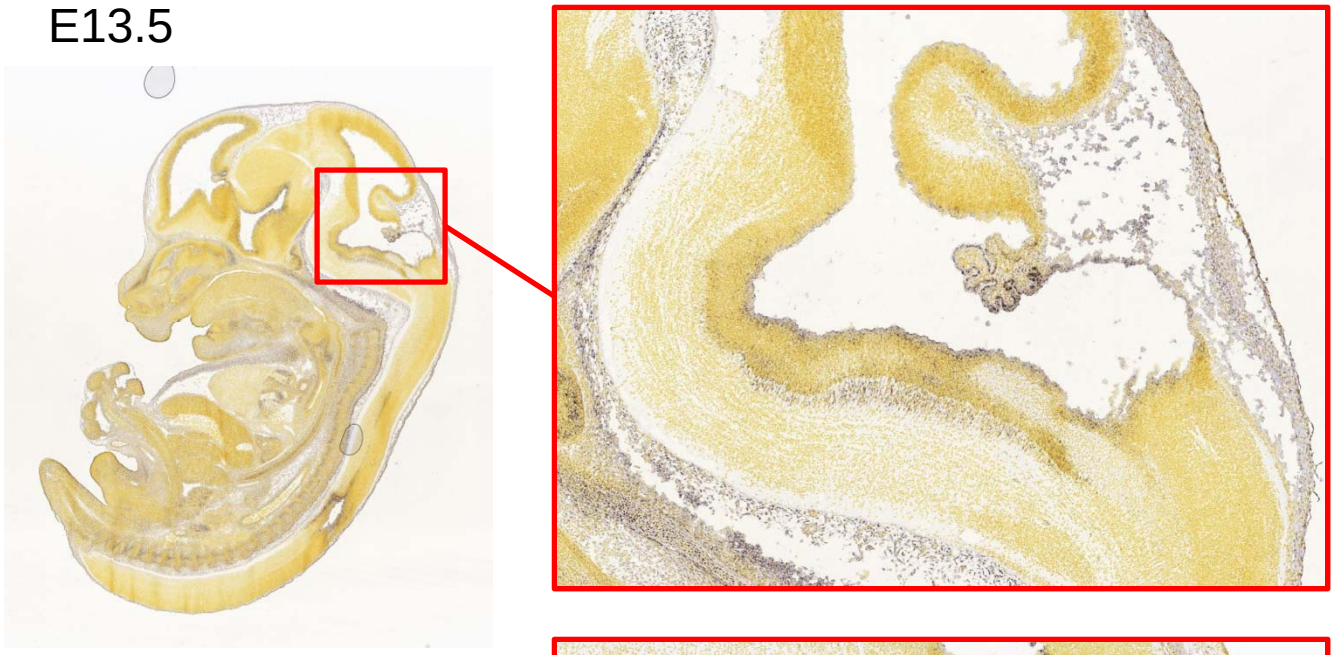


SHH-subgroup gene: *Notch2*, Notched 2 (*in situ*)

E11.5



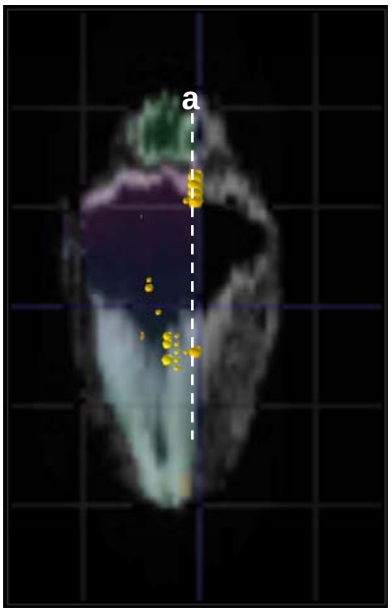
E13.5



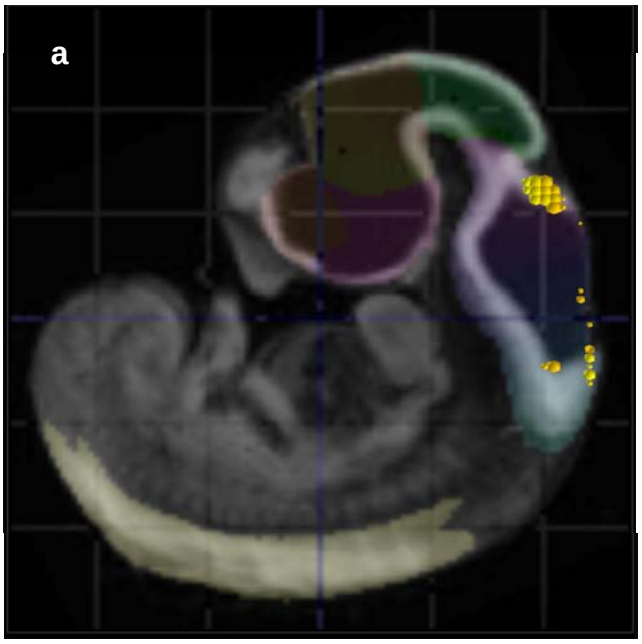
E15.5

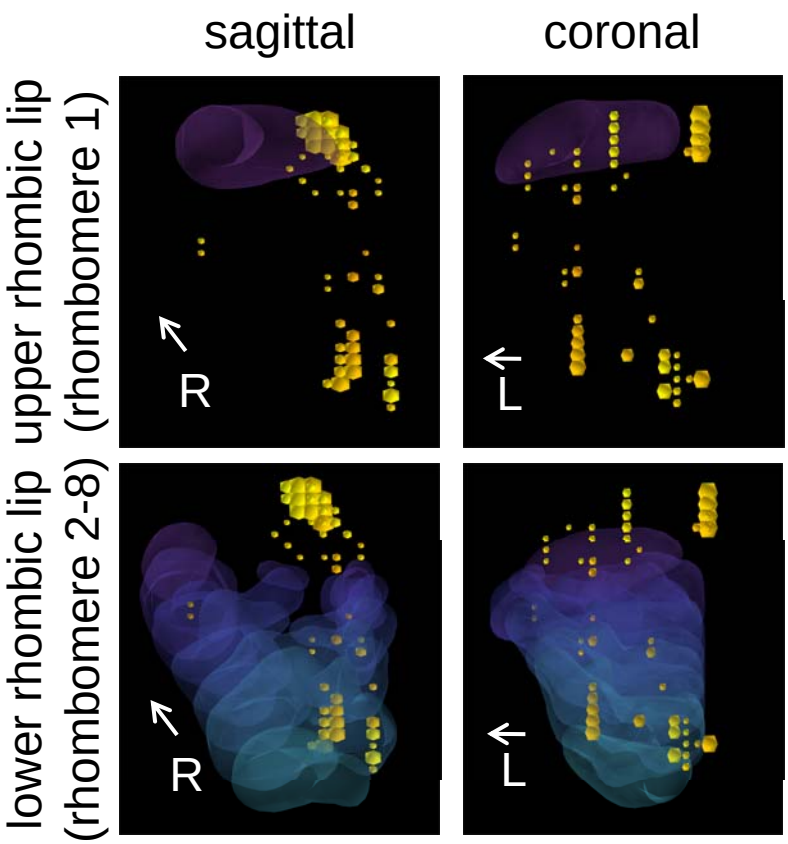
SHH-subgroup gene: *Notch2*, Notched 2 (E11.5)

coronal section



sagittal section

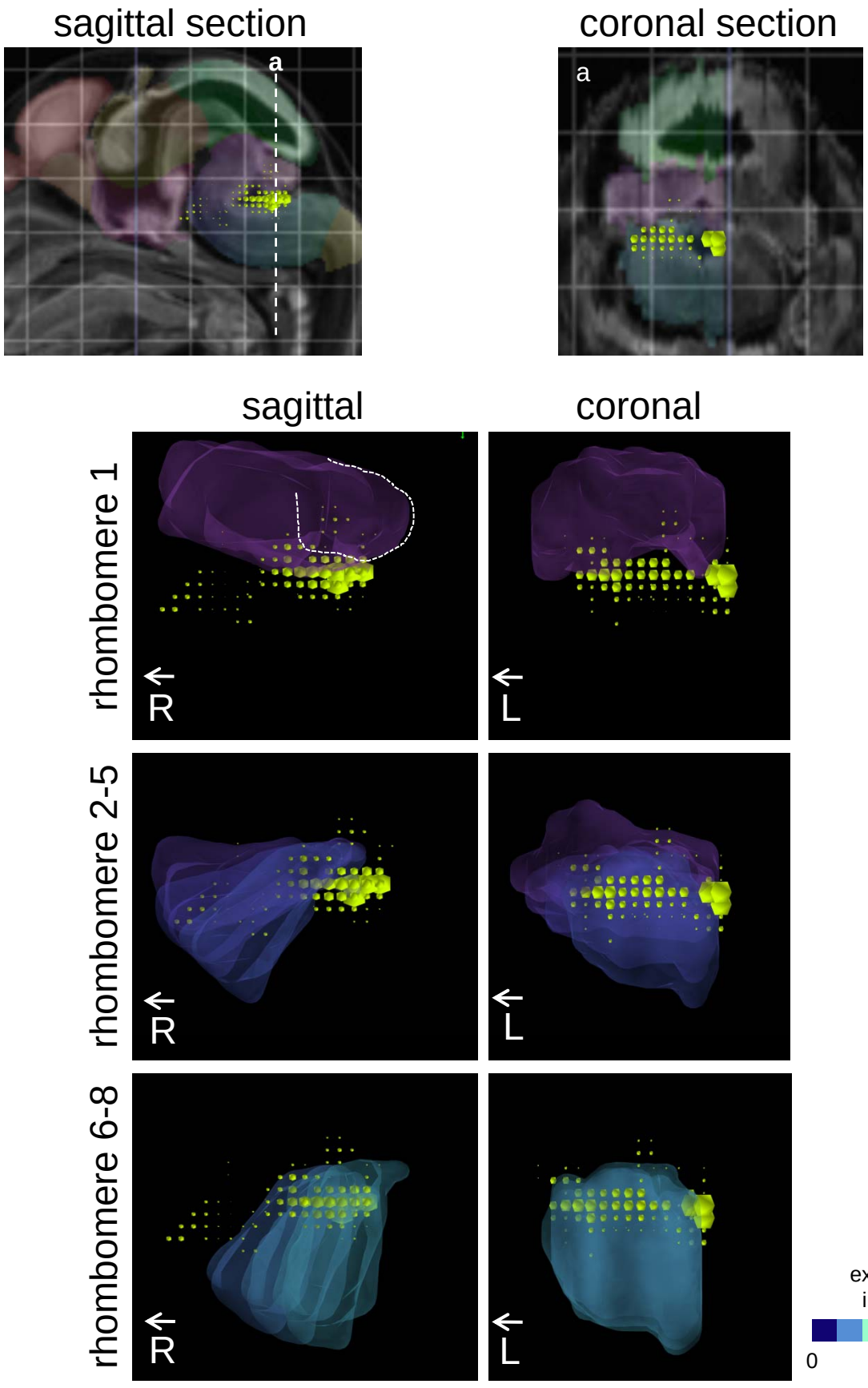




expression intensity

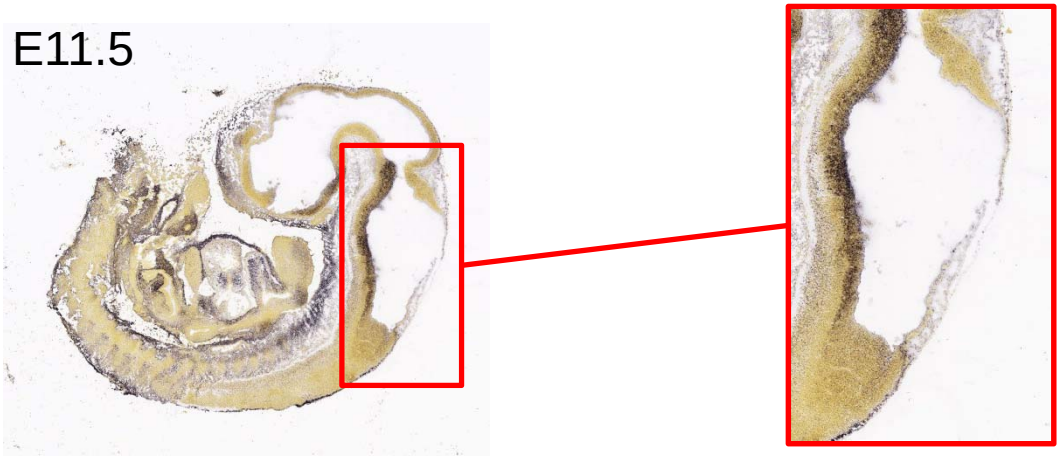
0 270

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



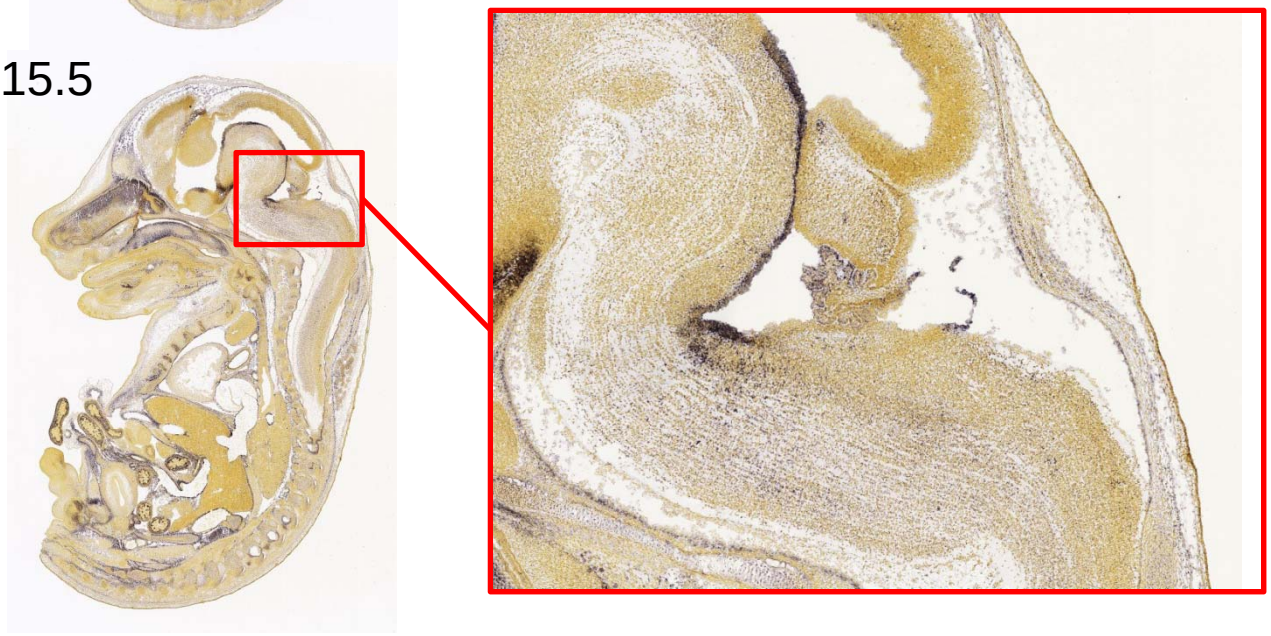
SHH-subgroup gene: *Sfrp1,* Secreted frizzled related protein 1 (*in situ*)

E11.5



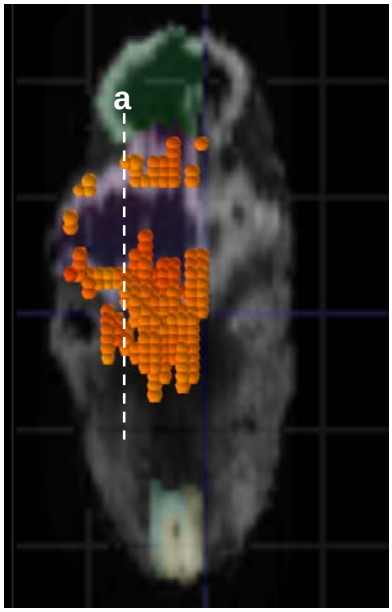
E13.5

E15.5

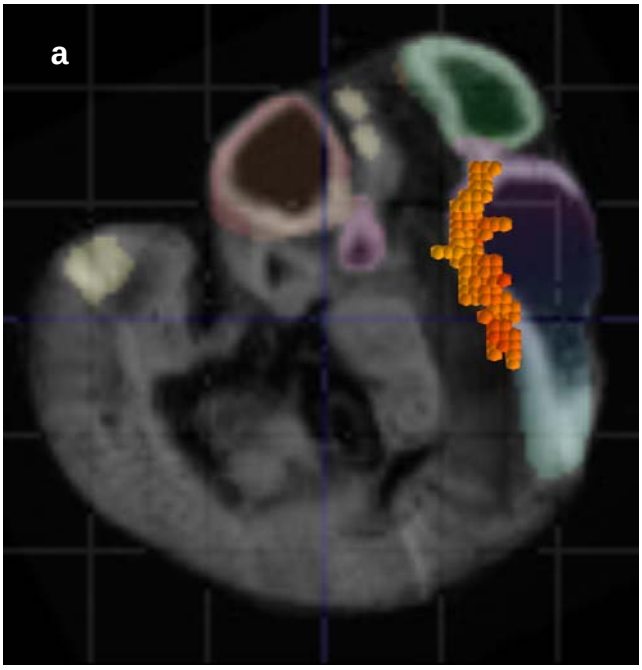


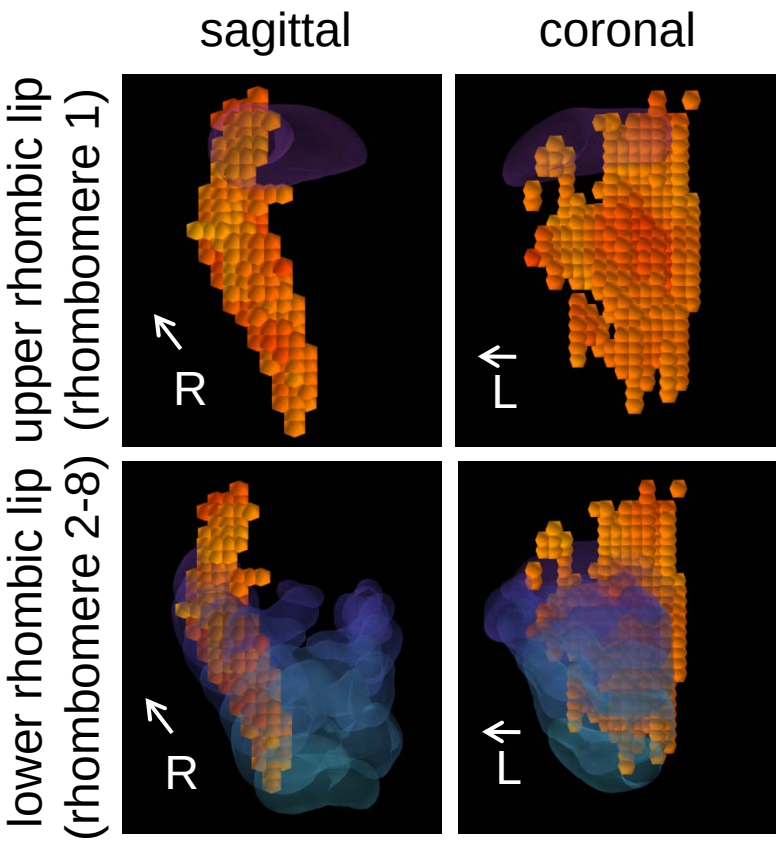
SHH-subgroup gene: *Sfrp1*, Secreted frizzled related protein 1 (E11.5)

coronal section



sagittal section

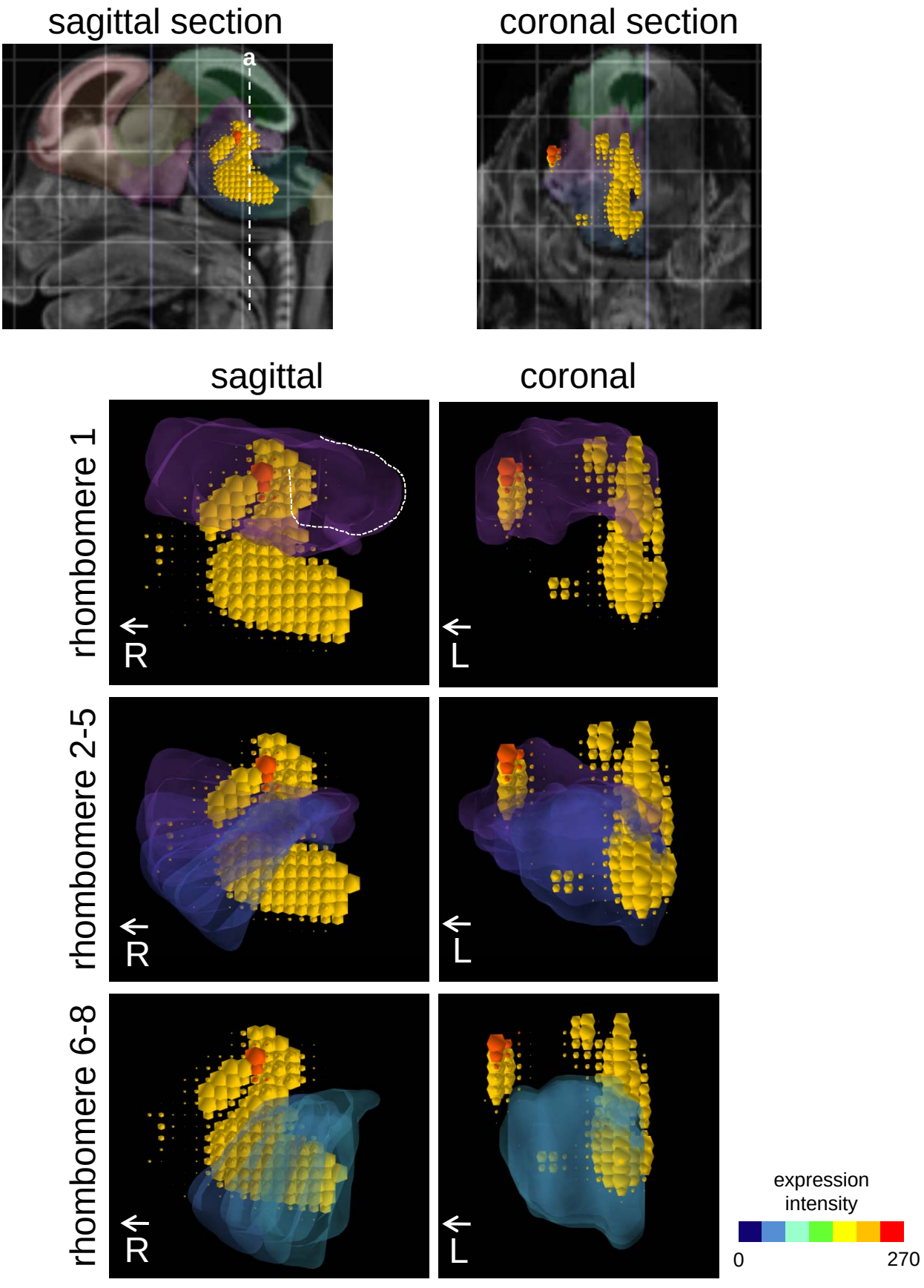




expression intensity

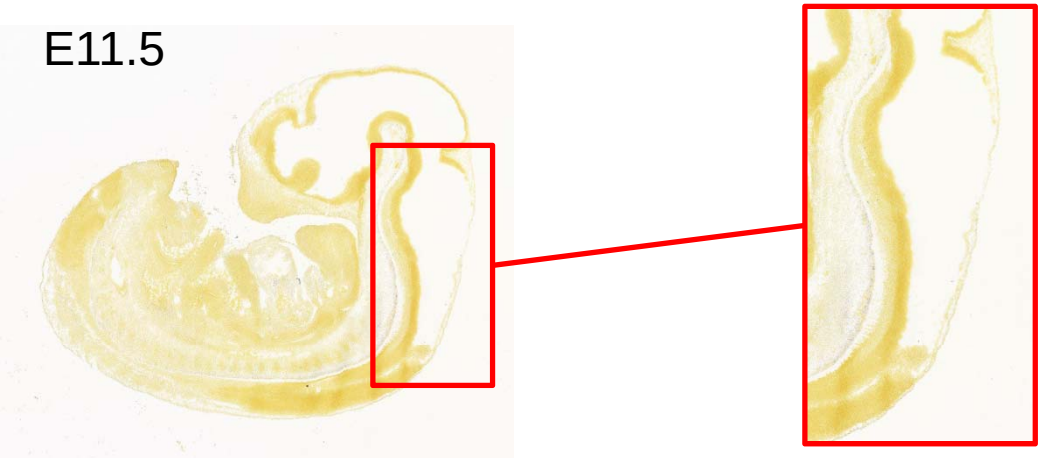
0 270

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

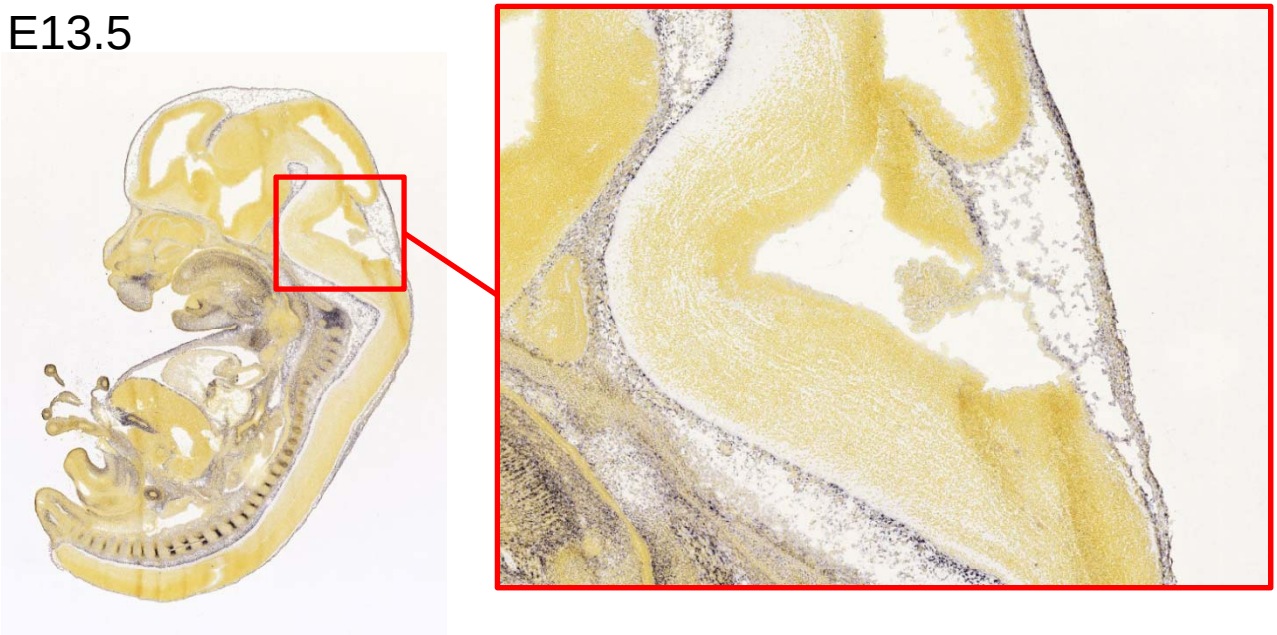


SHH-subgroup gene: *Col6a1*, Procollagen VI a1 (*in situ*)

E11.5

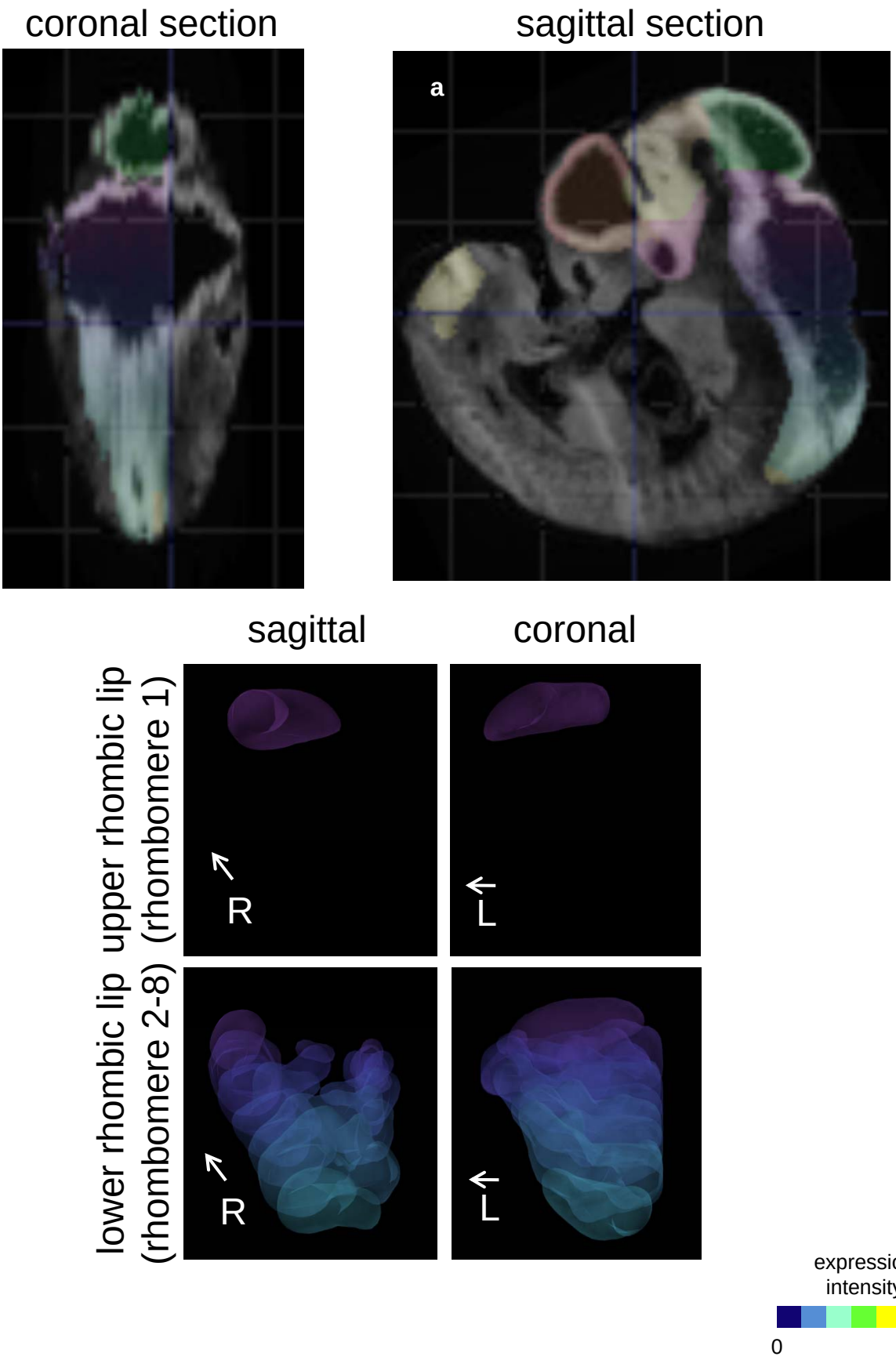


E13.5

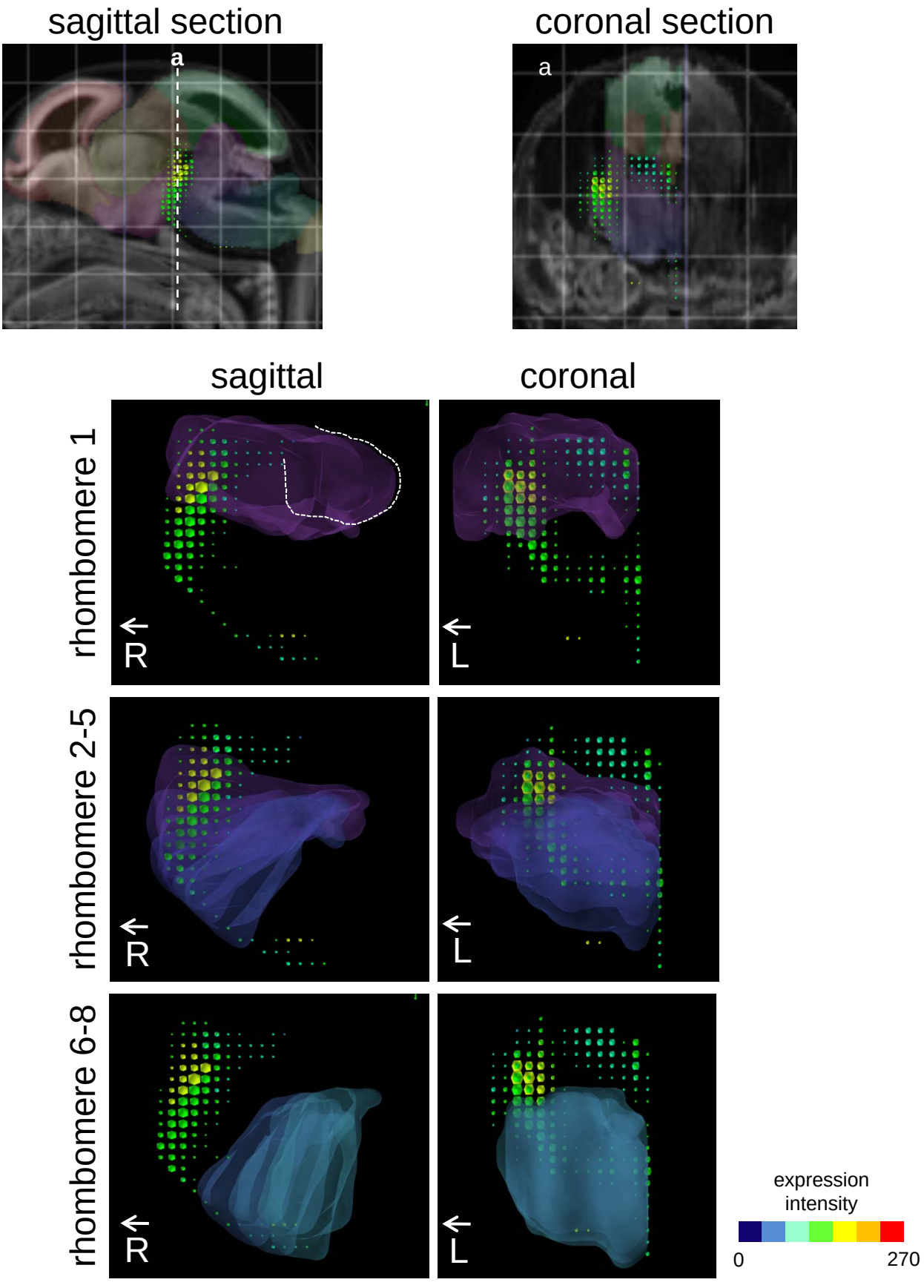


E15.5

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



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

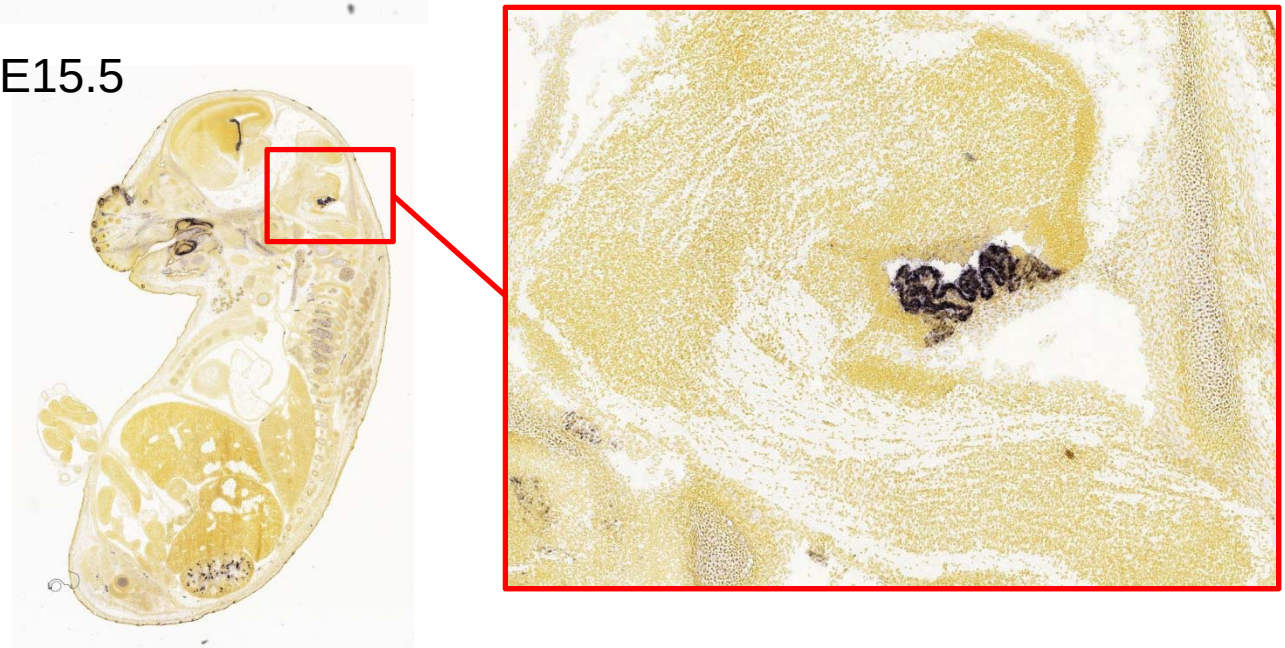


SHH-subgroup gene: *Sostdc1,* Sclerostin domain containing 1 (*in situ*)

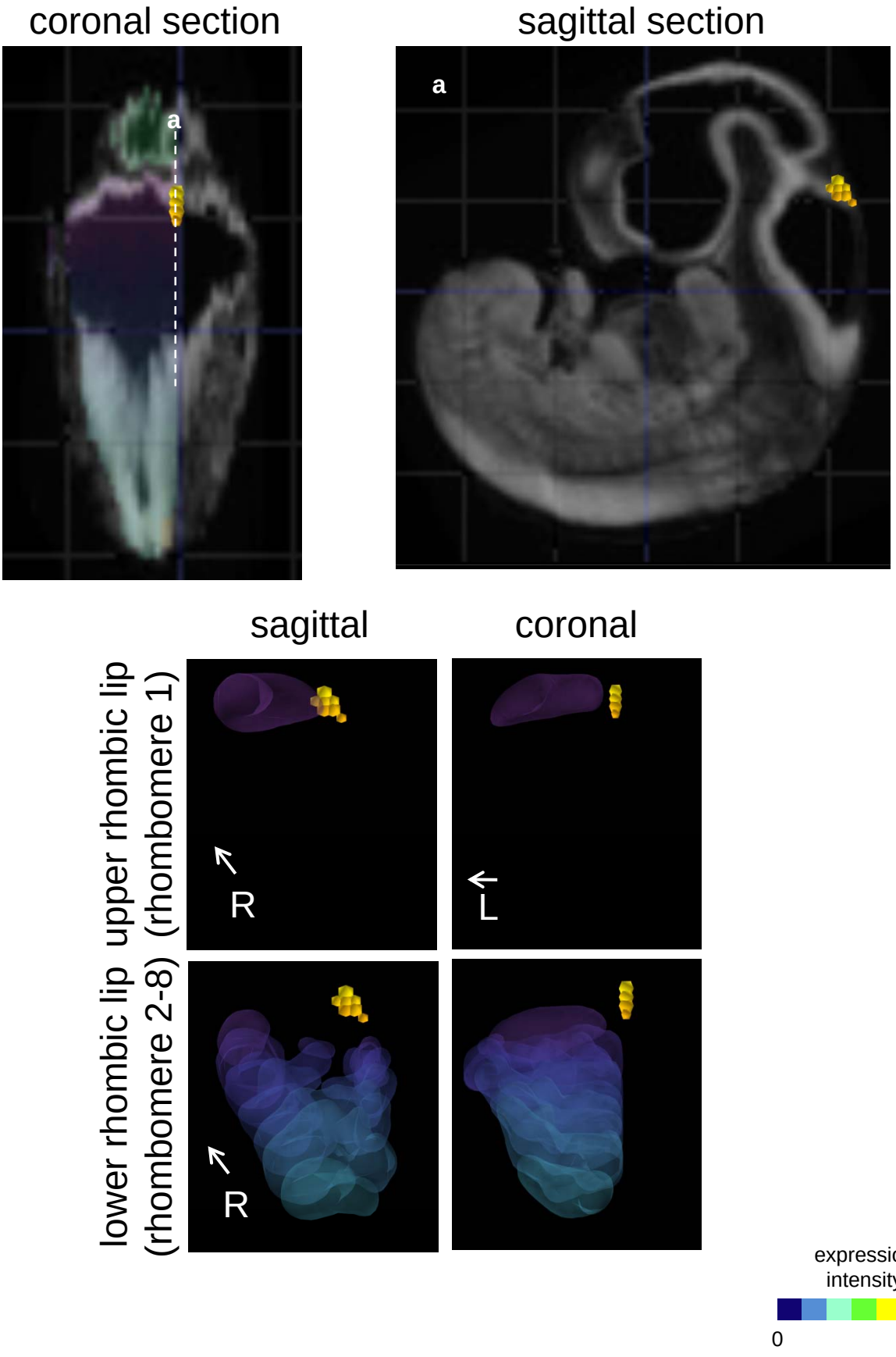
E11.5

E13.5

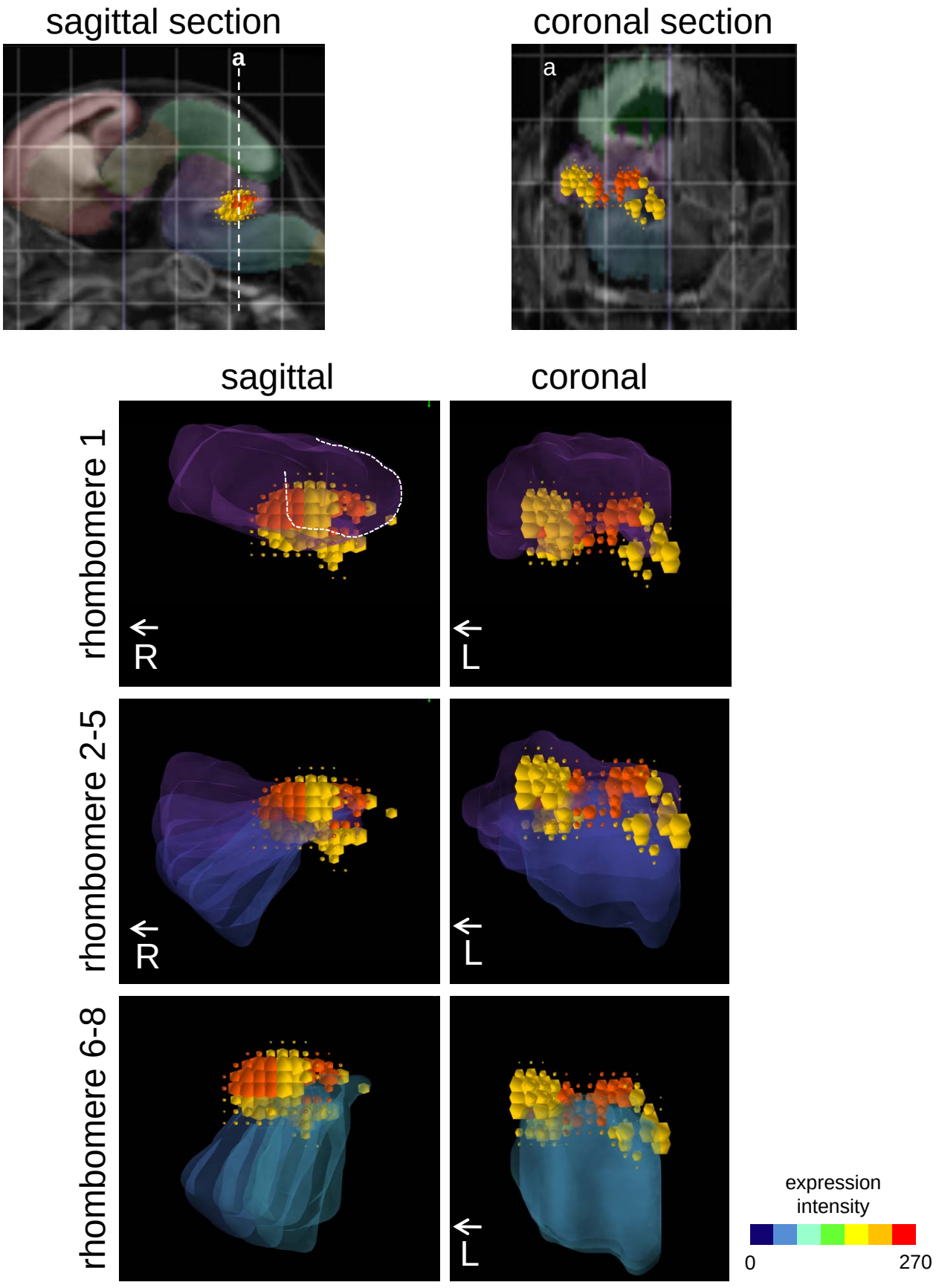
E15.5



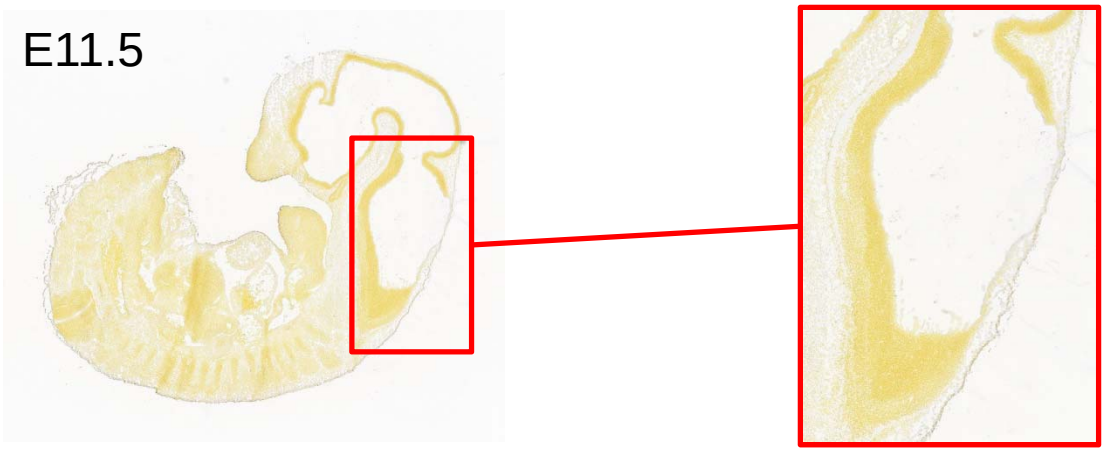
SHH-subgroup gene: *Sostdc1,* Sclerostin domain containing 1 (E11.5)

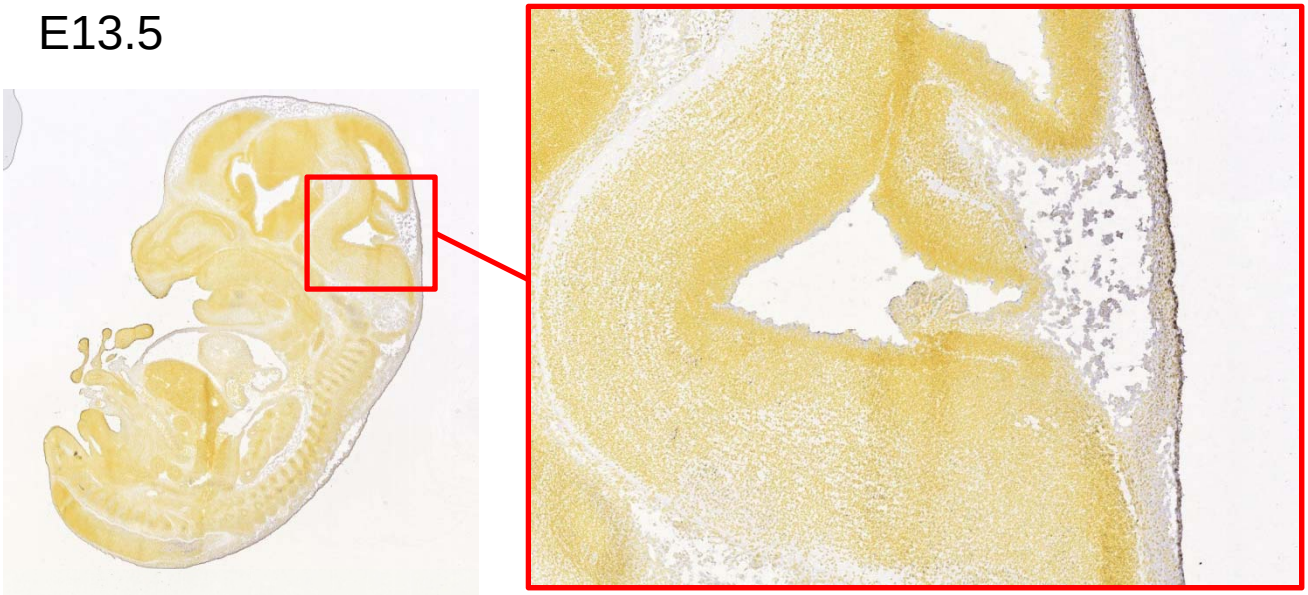


SHH-subgroup gene: *Sostdc1,* Sclerostin domain containing 1 (E15.5)

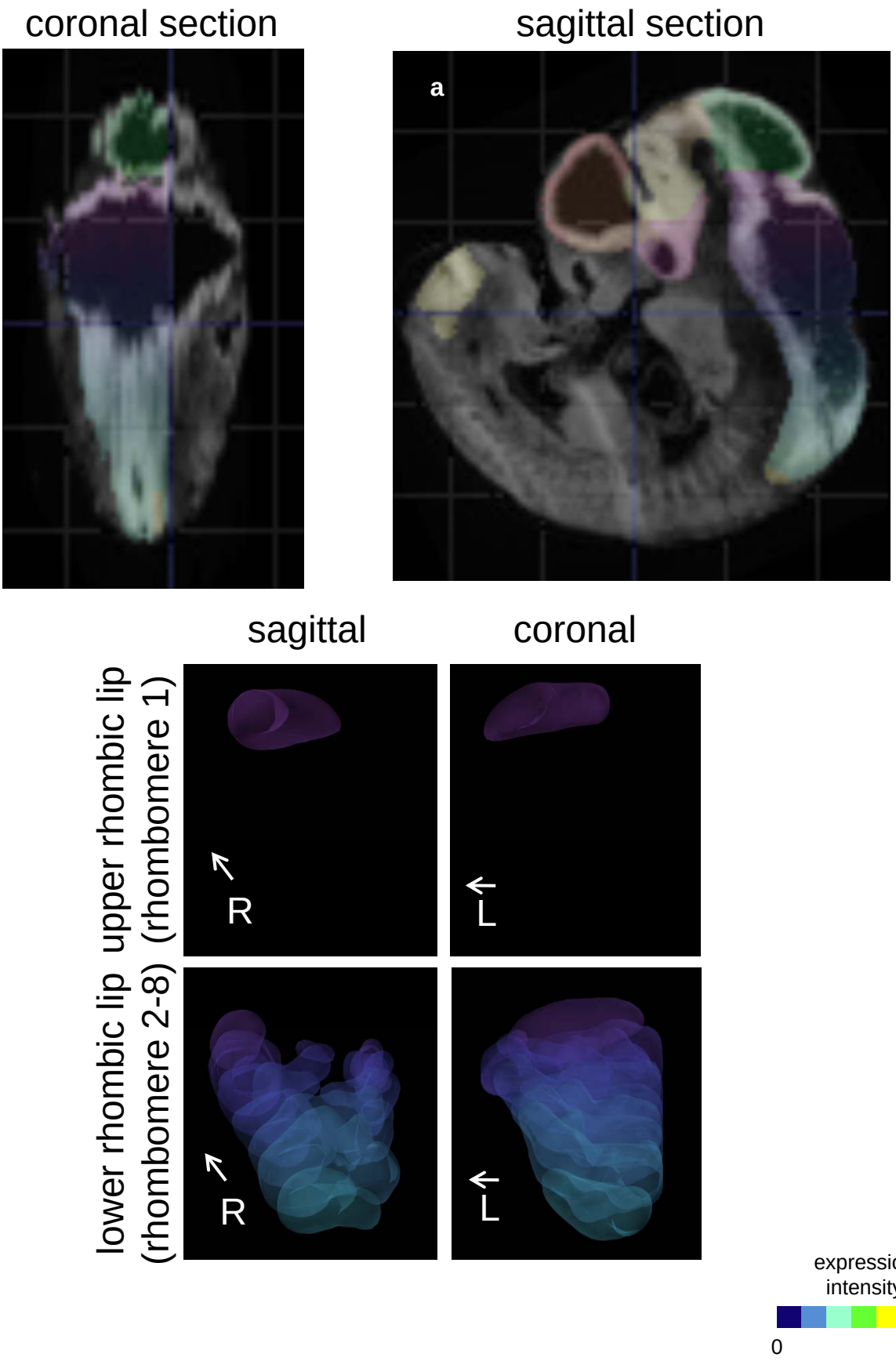


SHH-subgroup gene: *Chrna7,* Cholinergic receptor nicotinic alpha 7 (*in situ*)

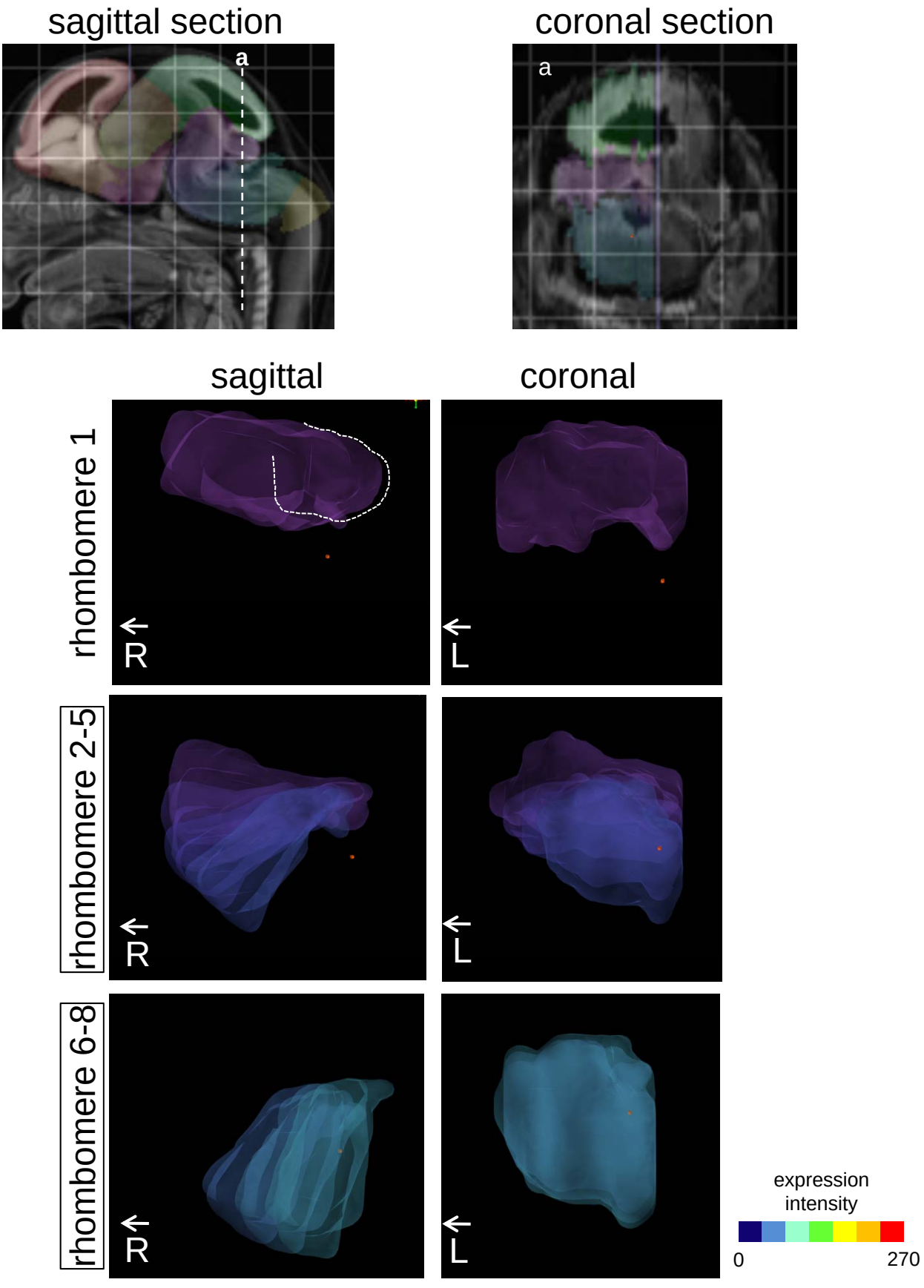




SHH-subgroup gene: *Chrna7,* Cholinergic receptor nicotinic alpha 7 (E11.5)

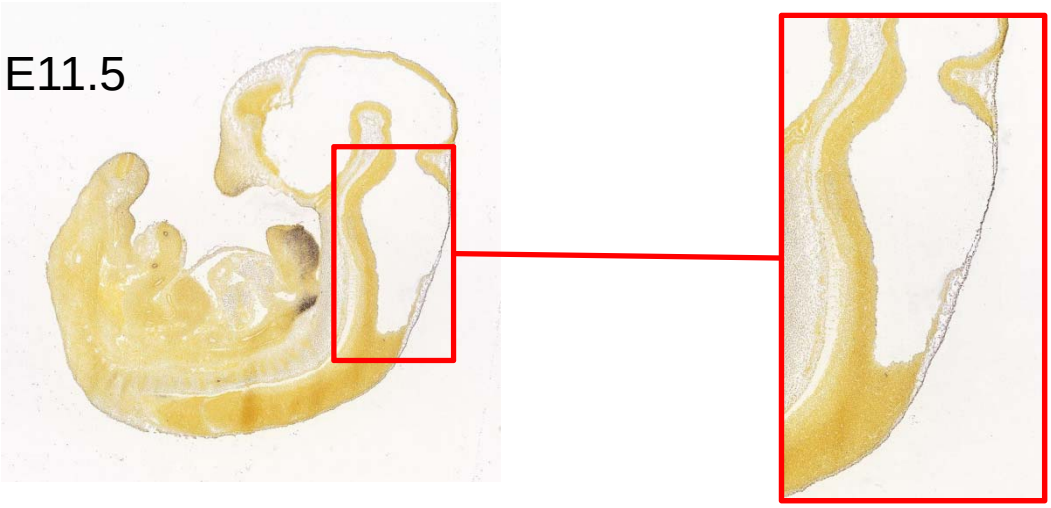


SHH-subgroup gene: *Chrna7,* Cholinergic receptor nicotinic alpha 7 (E15.5)



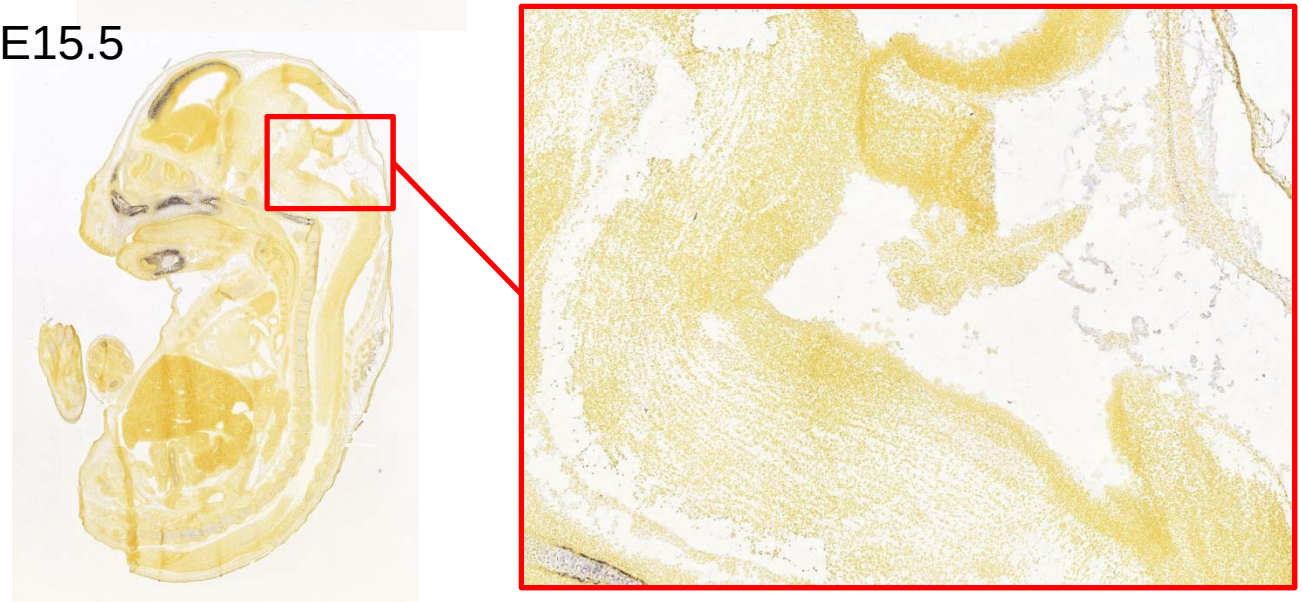
SHH-subgroup gene: *Satb2,* Special AT rich sequence binding protein 2 (*in situ*)

E11.5

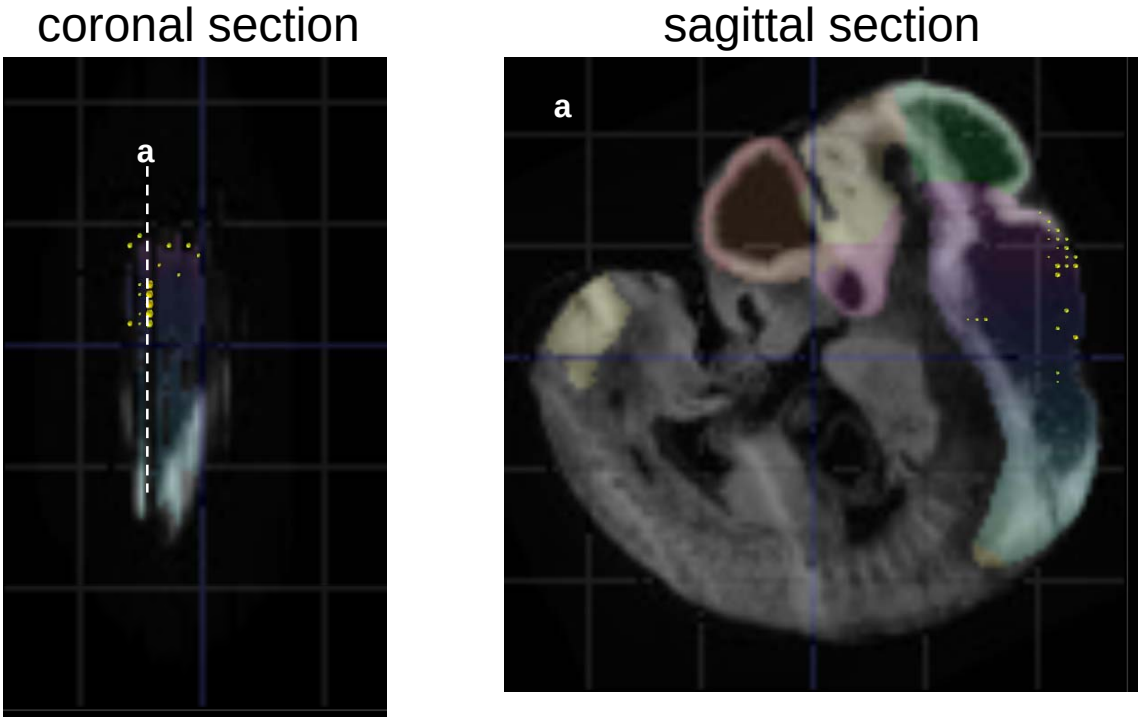


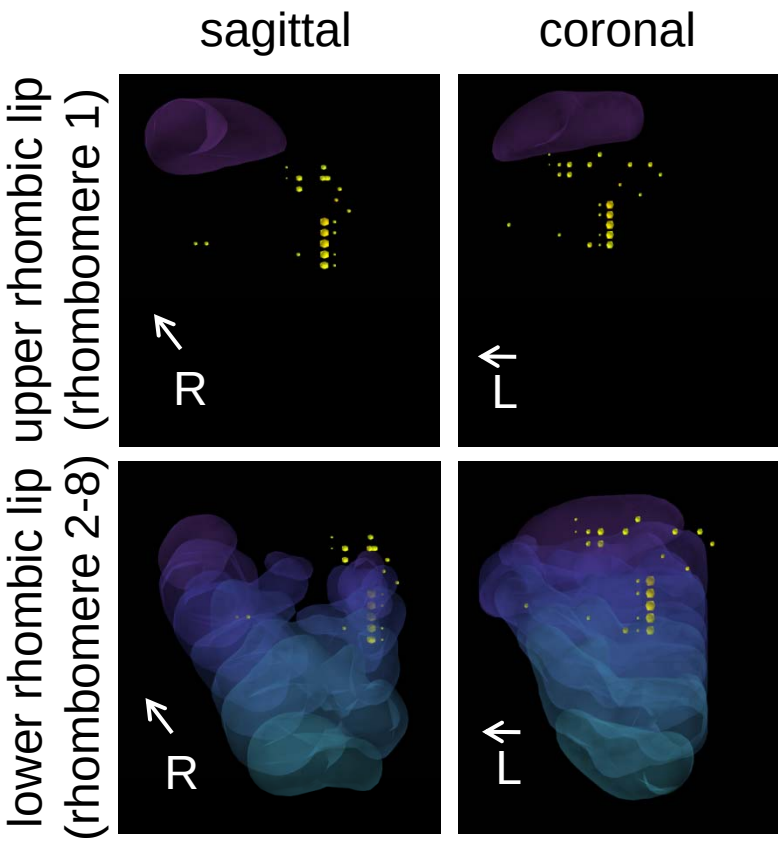
E13.5

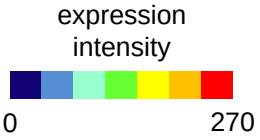
E15.5



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







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