

OH15500 ID

Reference Manual

otls669[NeuroPAL];otls672[Panneuronal::GCaMP6s]
23x Bottlenecked

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Hobert Lab – Columbia University

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Introduction Please Read This!

- Conventions:
 - I significantly increased the gamma so as to increase cell visibility. Please do the same. The actual volumes have much fainter colors.
 - The pages are ordered consecutively such that I display the landmarks on page 1, then overlay the GCaMP6s on page 2. All worms were anesthetized, the GCaMP6s reflects its baseline brightness.
 - *Italics* = the neuron's color is obscured due to being out of plane and/or another overlapping cell.
 - <Neuron ID>? = my best guess for the neuron. I have low confidence for the ID.
 - **Pink Text** = not a neuron.
 - I noted when cells were “missing” (obscured from view) as well as GCaMP6s qualities that can aid ID.
- Compared to NeuroPAL without GCaMP6s:
 - Most cells retain identical coloring with the following exceptions.
 - PVQ lost most of its blue coloring and is only visible in the panneuronal GCaMP6s & TagRFP-T channels.
 - AIA, AVL, RIM, & RIS appear to be more variable in the brightness of their reporters.
 - Because AVL & RIS share reporters, one's brightness/coloring is indicative of the other's.
 - AWC occasionally shows insufficient coloring to distinguish ON from OFF.
 - RIM often appears to venture further ventrally from its neighbor AVD.
 - The amphids often have a hole-y appearance, perhaps indicative of their landmark's histone tethers.

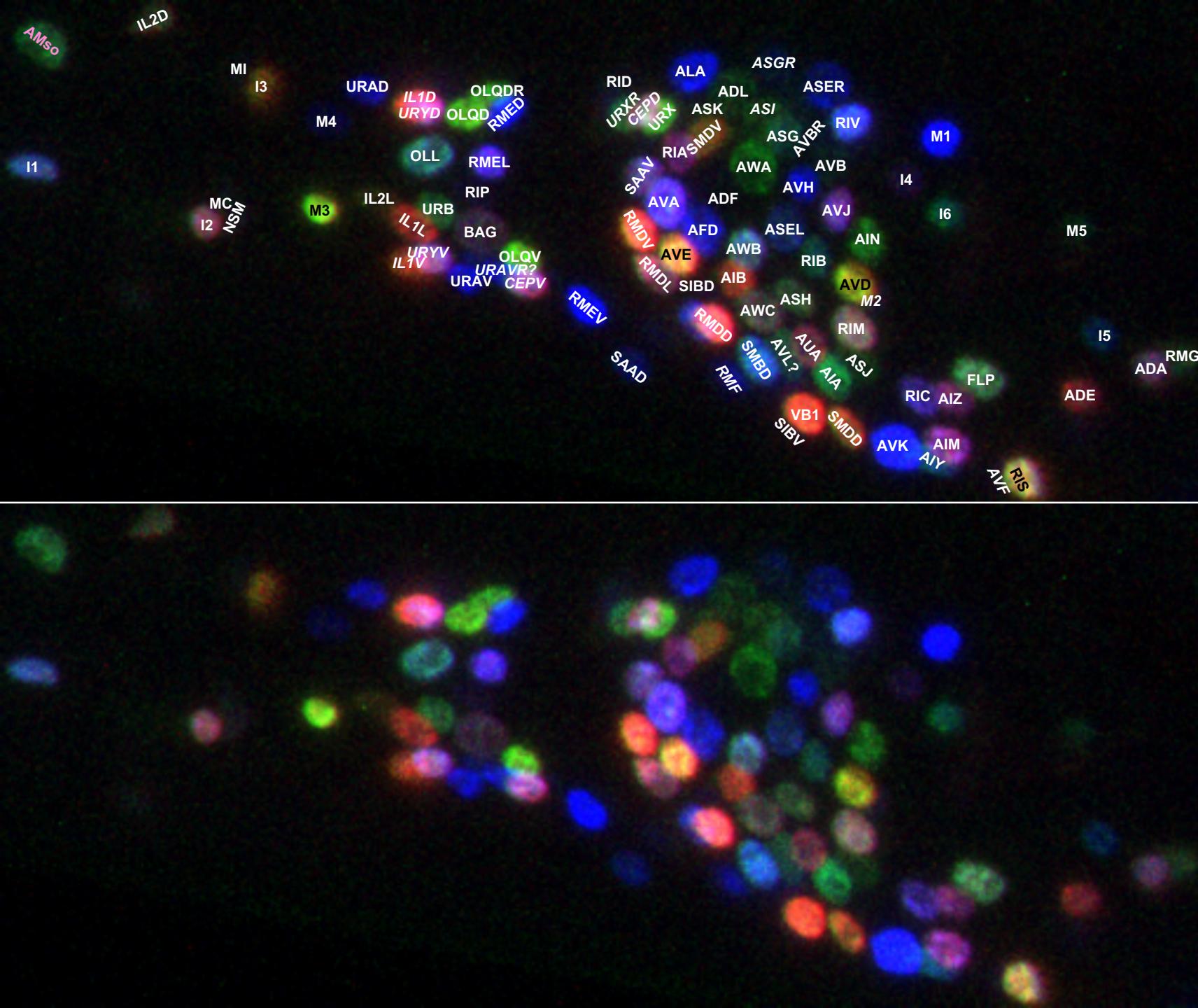
HEADS

L4 to Young Adult:

Head – Lateral

Left Side

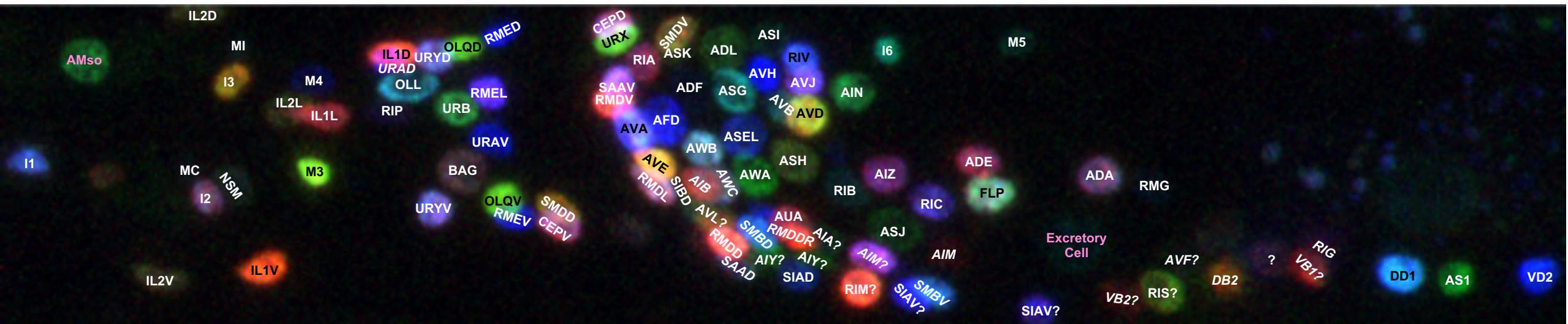
13-YAa-L1p (Left)



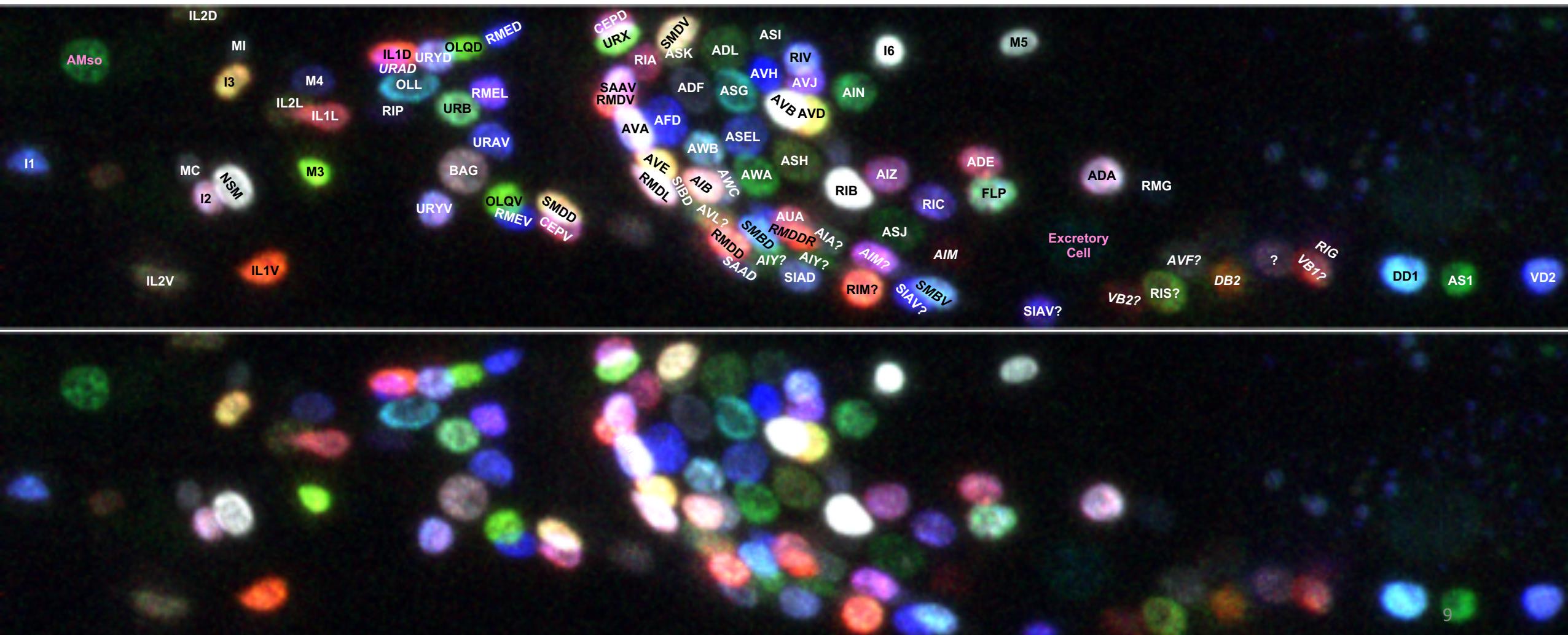
13_YAa_L1p(Left)



20_YAa_L2a (Left)



20_YAa_L2a (Left)



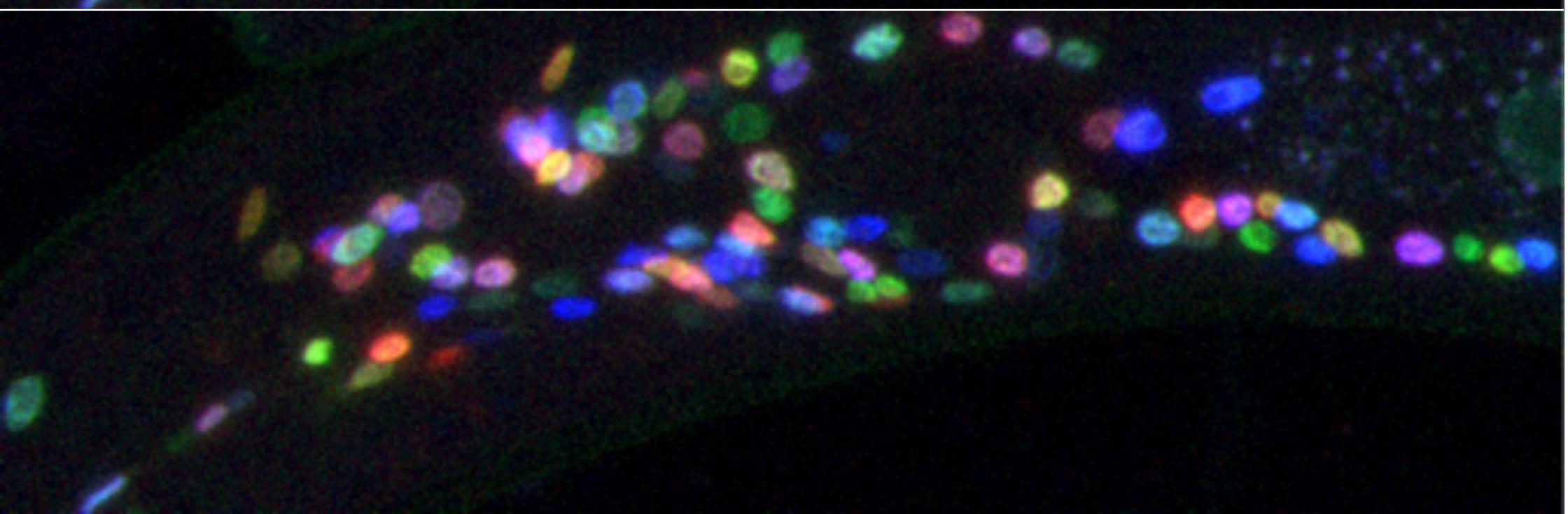
28 - L4a (left)



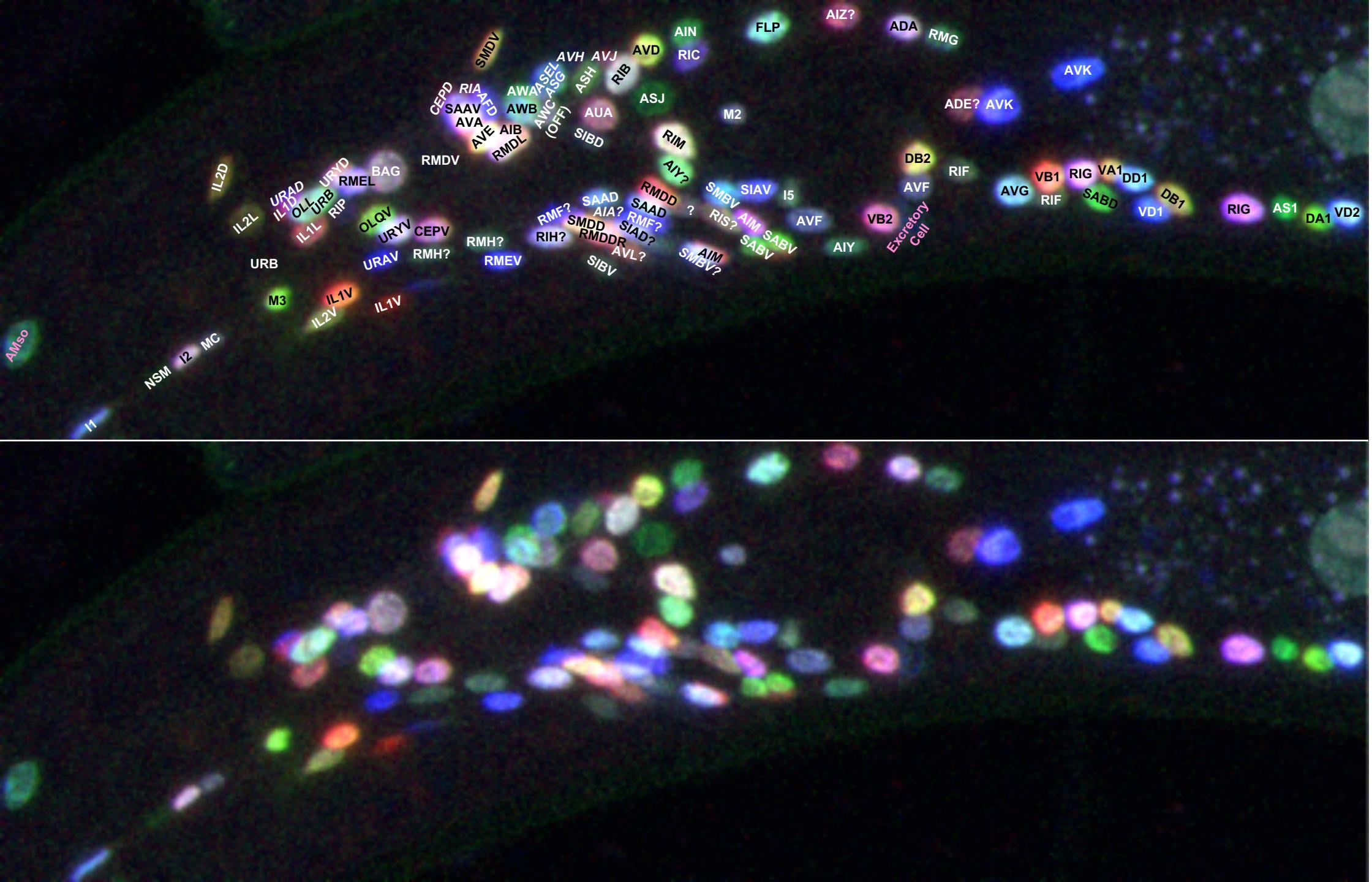
28 - L4a (left)



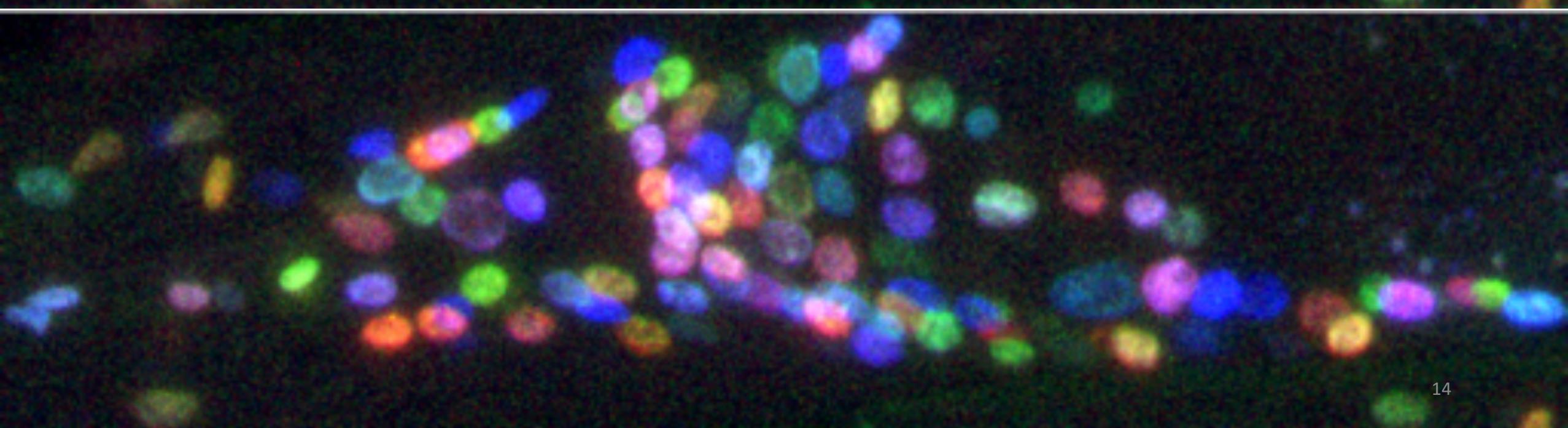
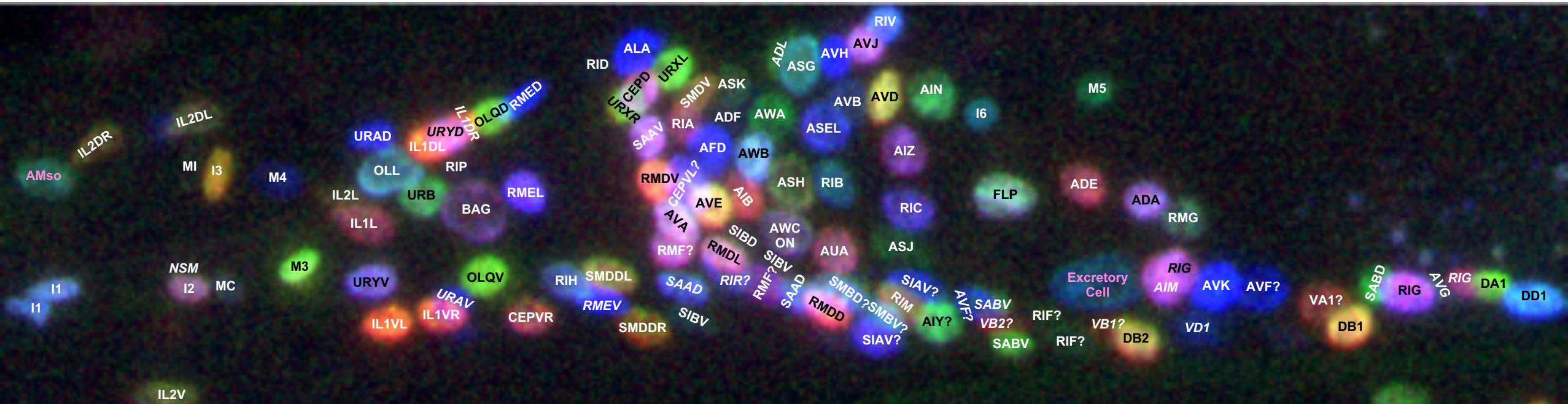
24 - MAa - L4a (left)



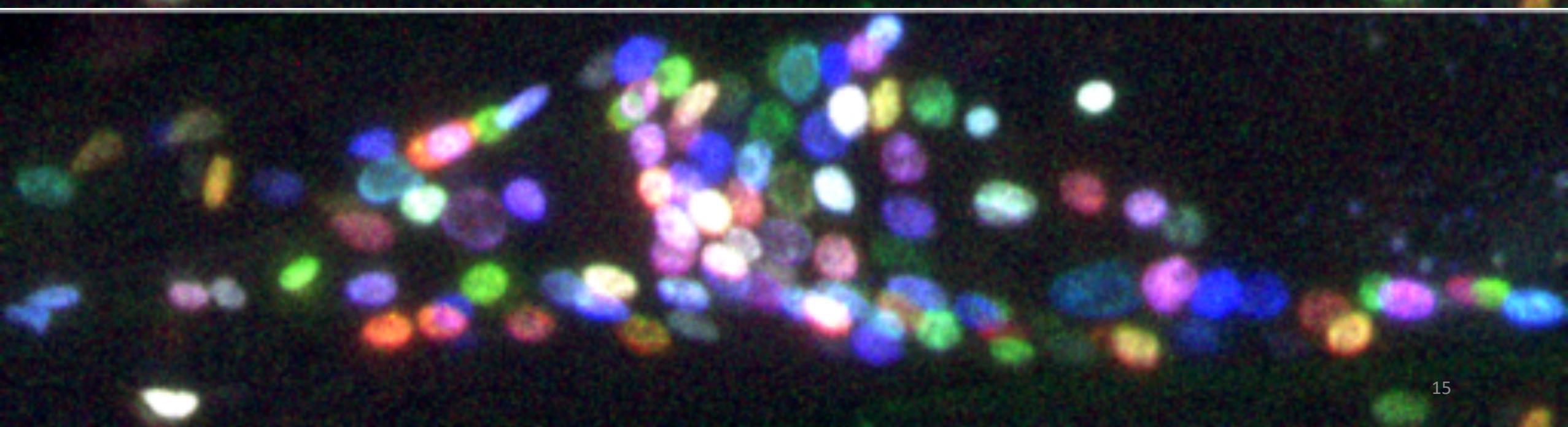
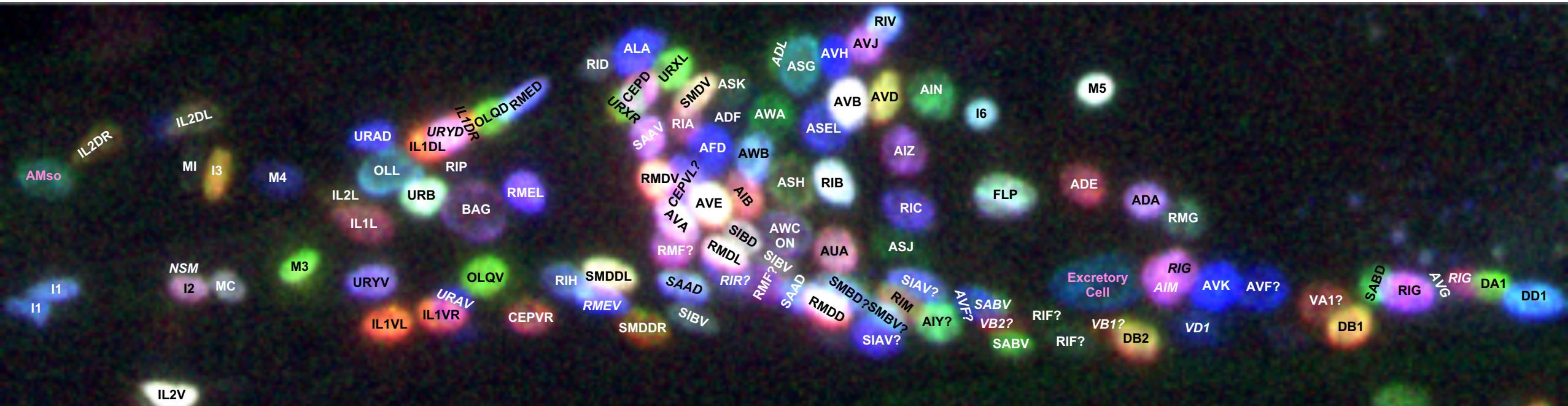
24 - Ma - L4a (left)



25_L4a_L1aSP_L1a (Left)



25_L4a_L1aSP_L1a (Left)

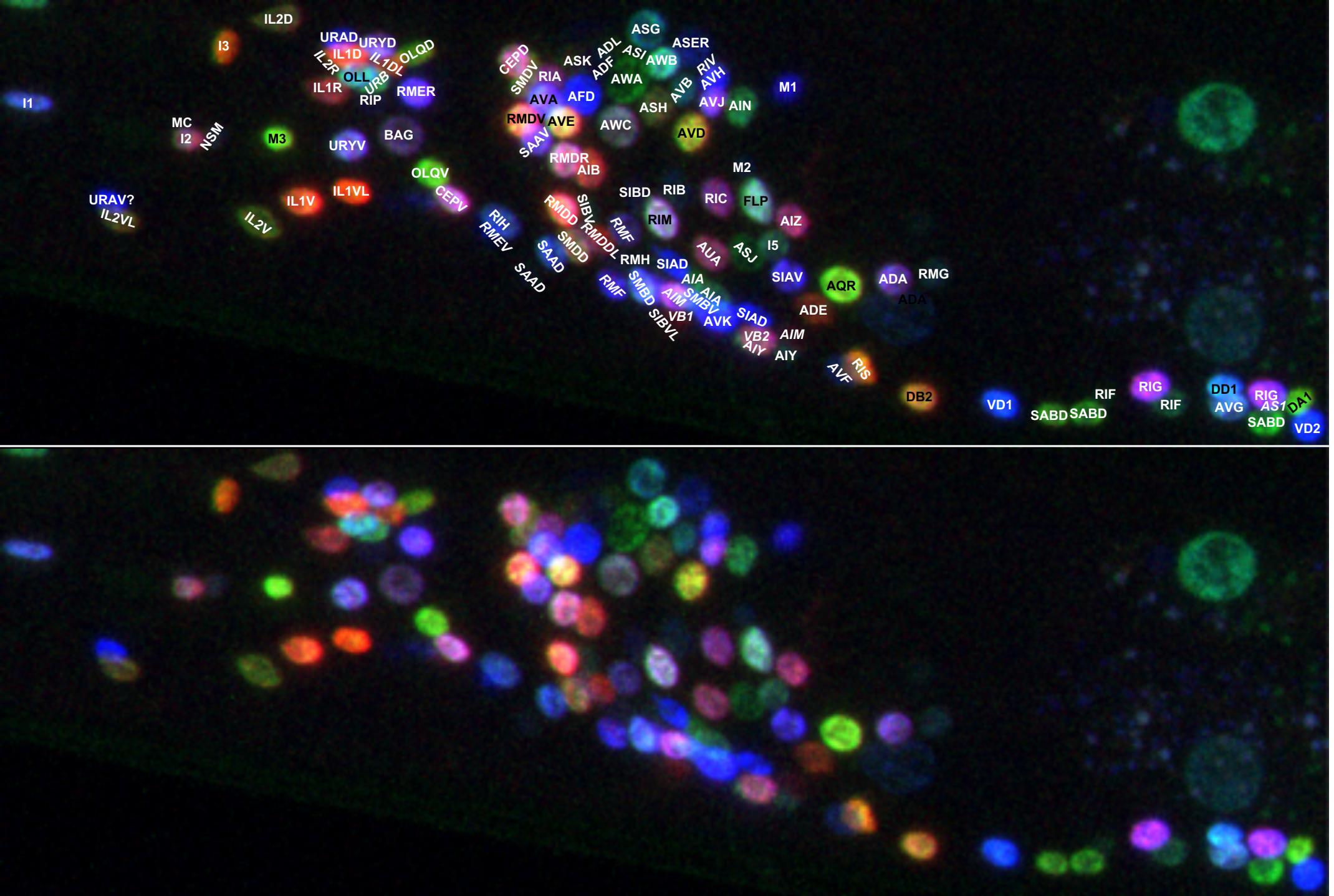


L4 to Young Adult:

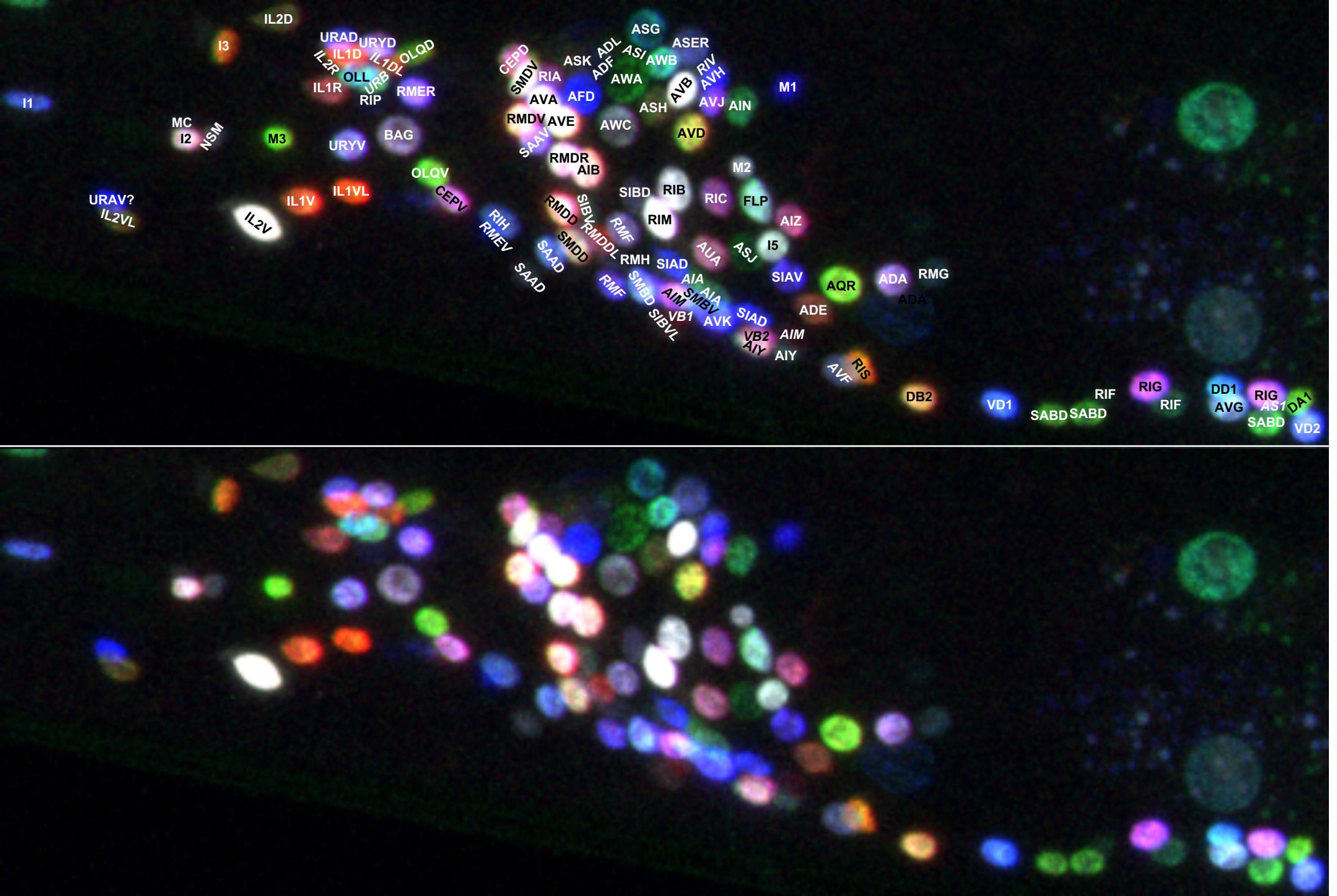
Head – Lateral

Right Side

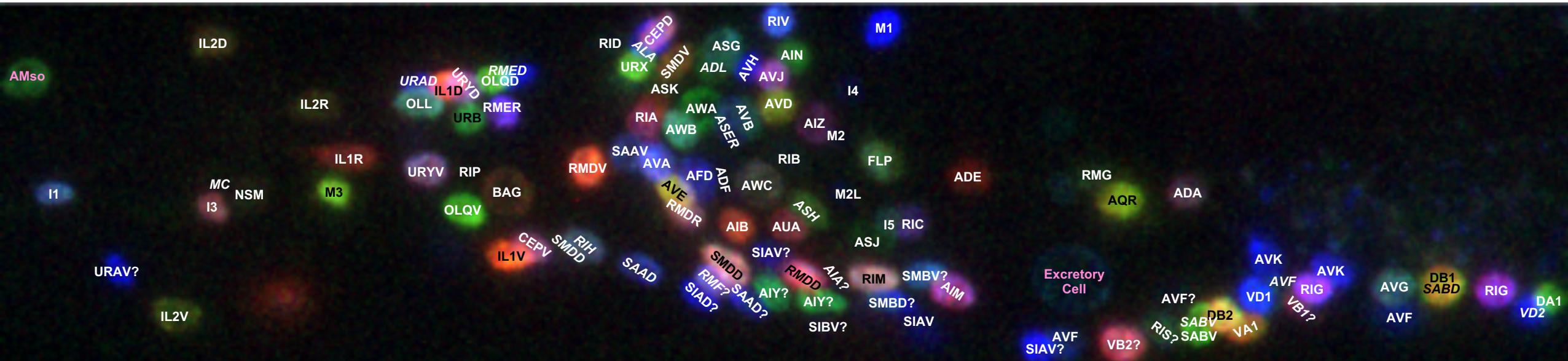
13_YAa_L1p (Right)



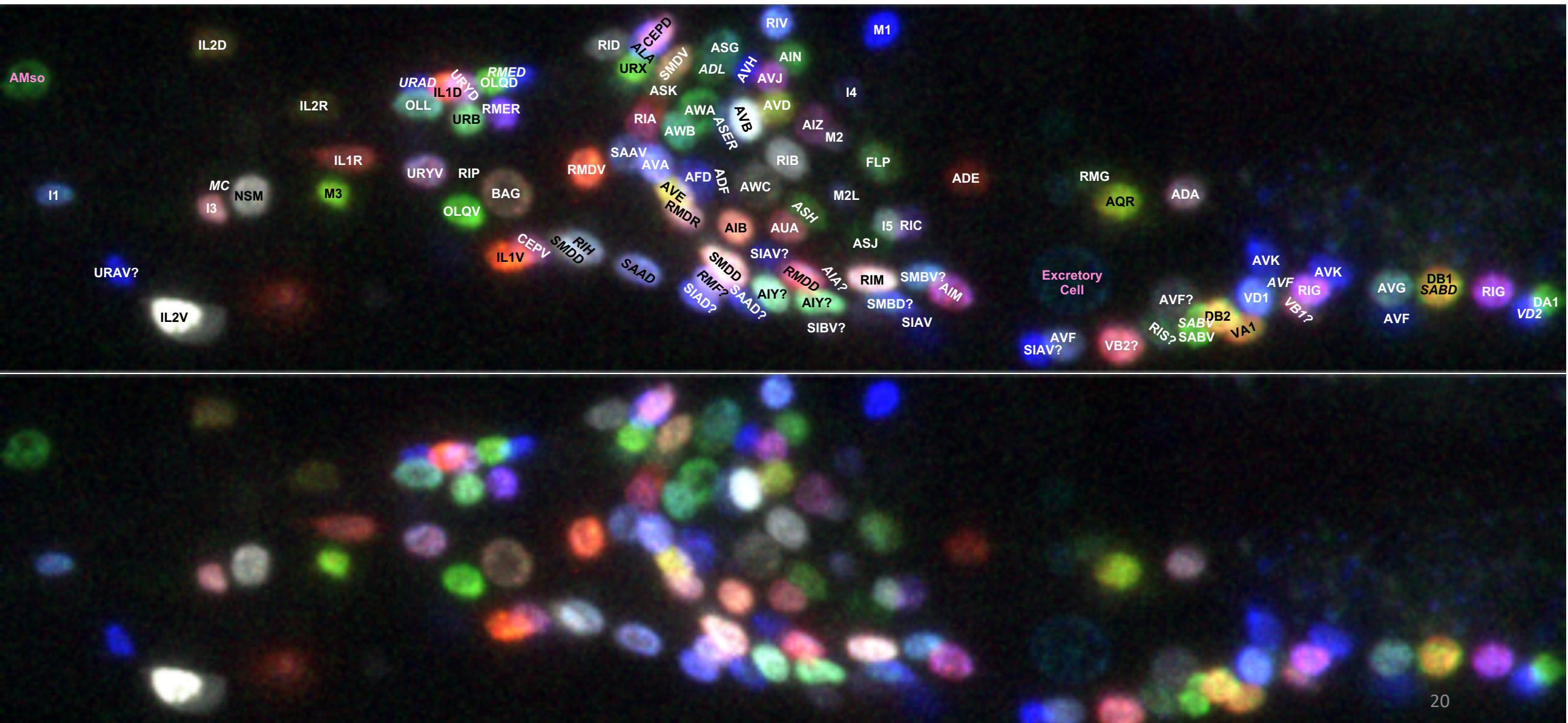
13_YAa_L1p (Right)



20_YAa_L2a (Right)



20_YAa_L2a (Right)



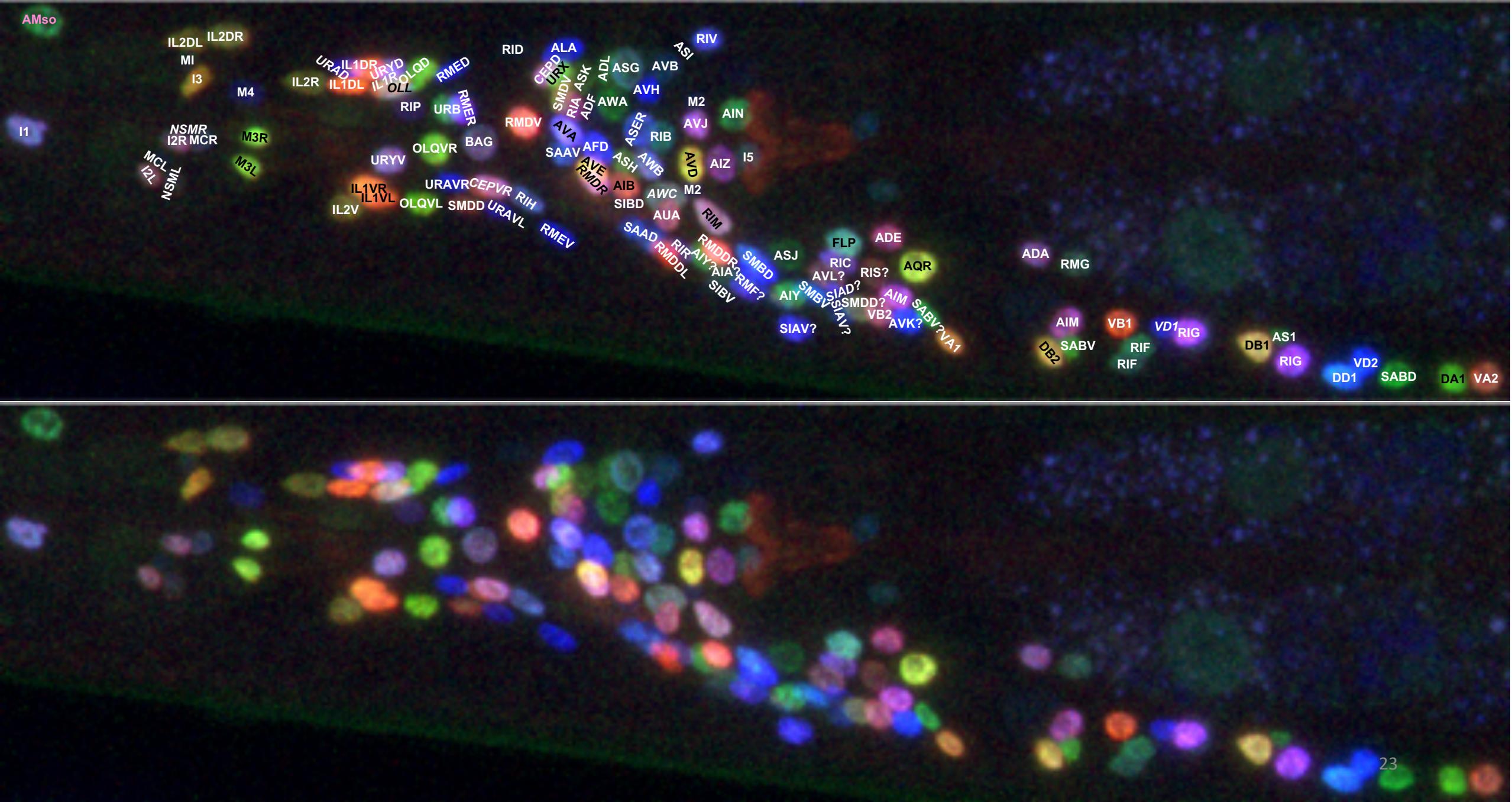
28_L4a (Right)



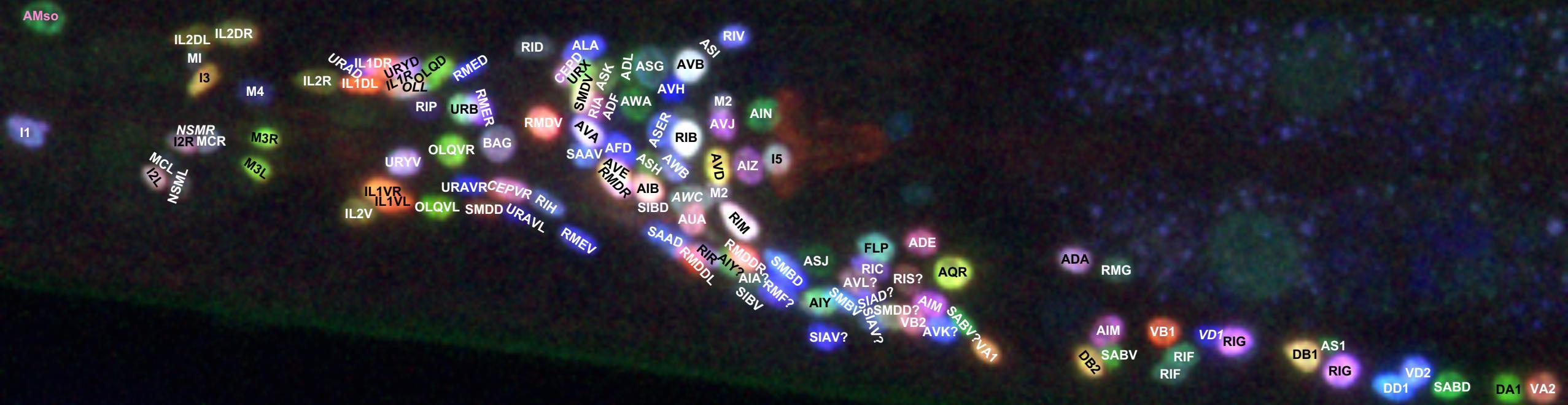
28_L4a (Right)



26_YAa (Right)



26_YAa (Right)



L4 to Young Adult:

Head – Dorsal-Ventral

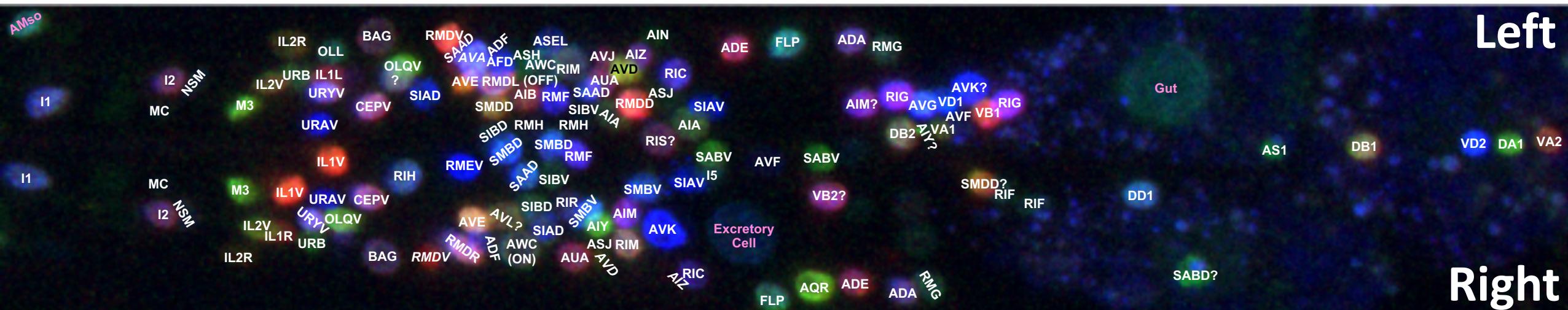
1_AaSP (Ventral)

AWC::GCaMP6s = ON is slightly brighter than OFF.

Missing: AIBR & RMDDR. I'm almost 100% sure they ended up on the dorsal side of the worm!!!

* There are 2 cells between ASK, ADL, ASI that have the right coloring & nothing else shares such colors anywhere near.

** Never seen anything like this. Maybe the image distorted?



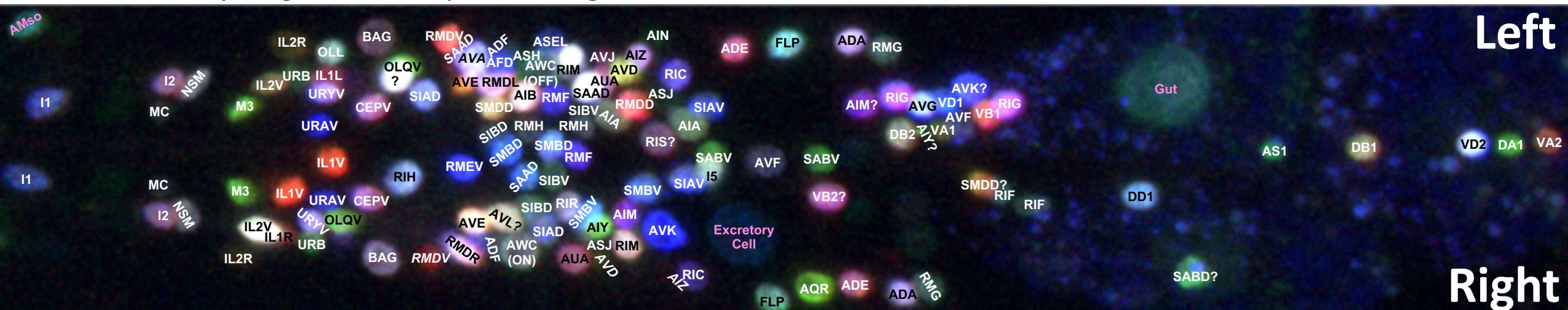
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Missing: AIBR & RMDDR. I'm almost 100% sure they ended up on the dorsal side of the worm!!!

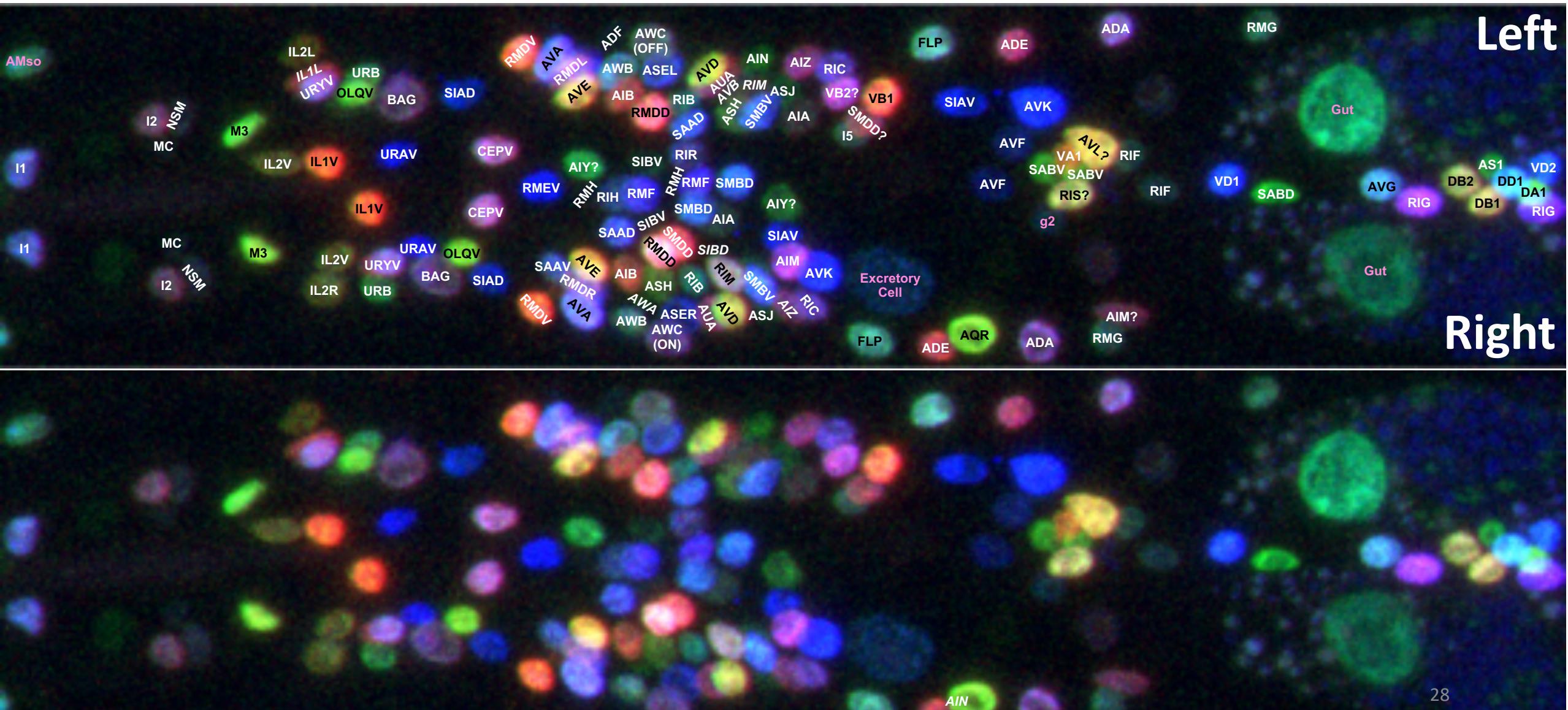
* There are 2 cells between ASK, ADL, ASI that have the right coloring & nothing else shares such colors anywhere near.

** Never seen anything like this. Maybe the image distorted?



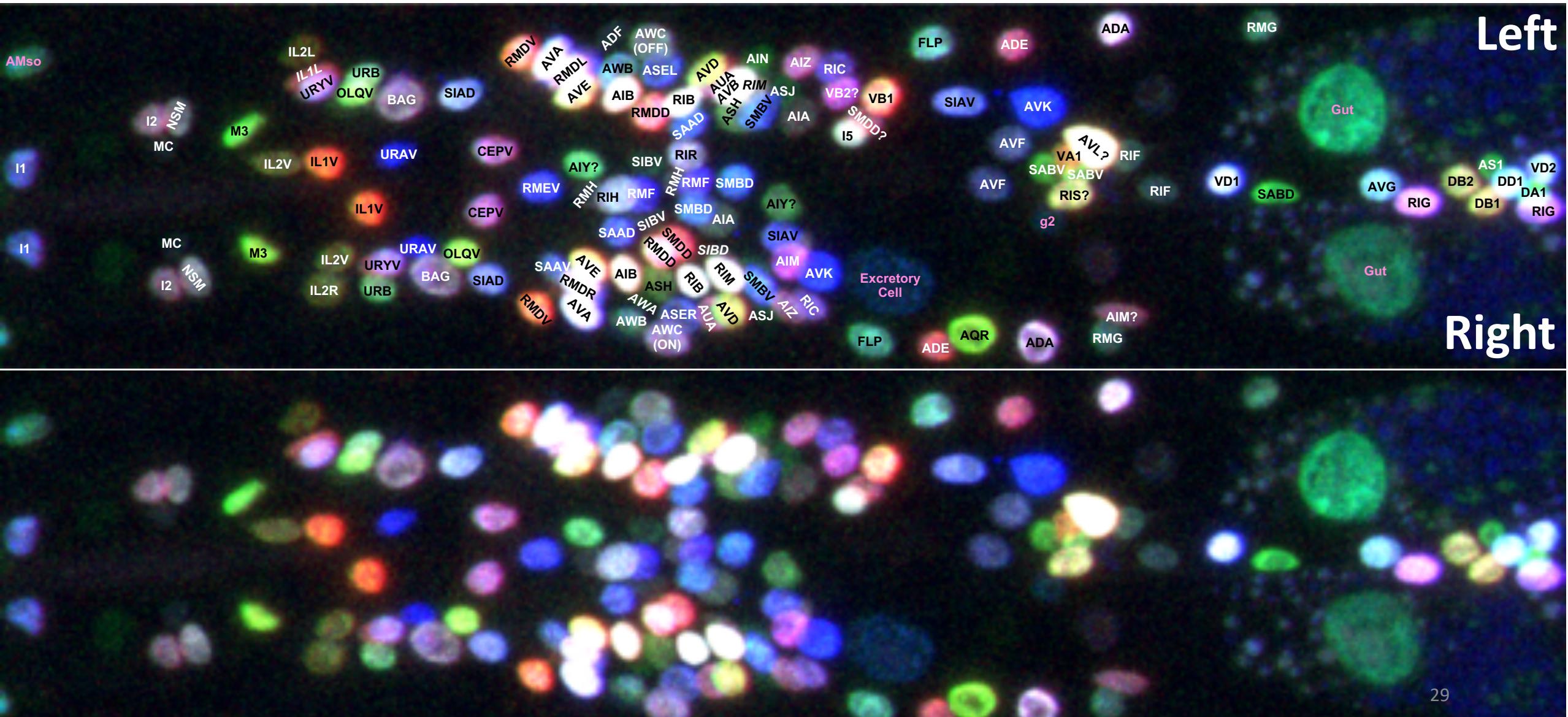
4_AaSP (Ventral)

AWC::GCaMP6s = ON is slightly brighter than OFF.



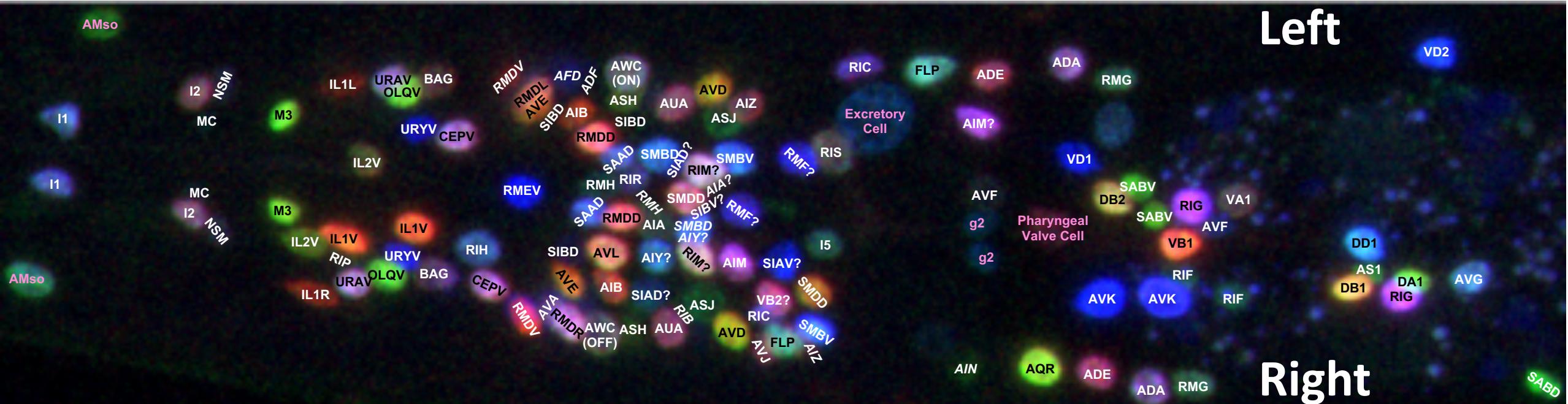
4_AaSP (Ventral)

AWC::GCaMP6s = ON is slightly brighter than OFF.



10_YAaSP (Ventral)

AWC::GCaMP6s = ON is slightly brighter than OFF.



10_YAaSP (Ventral)

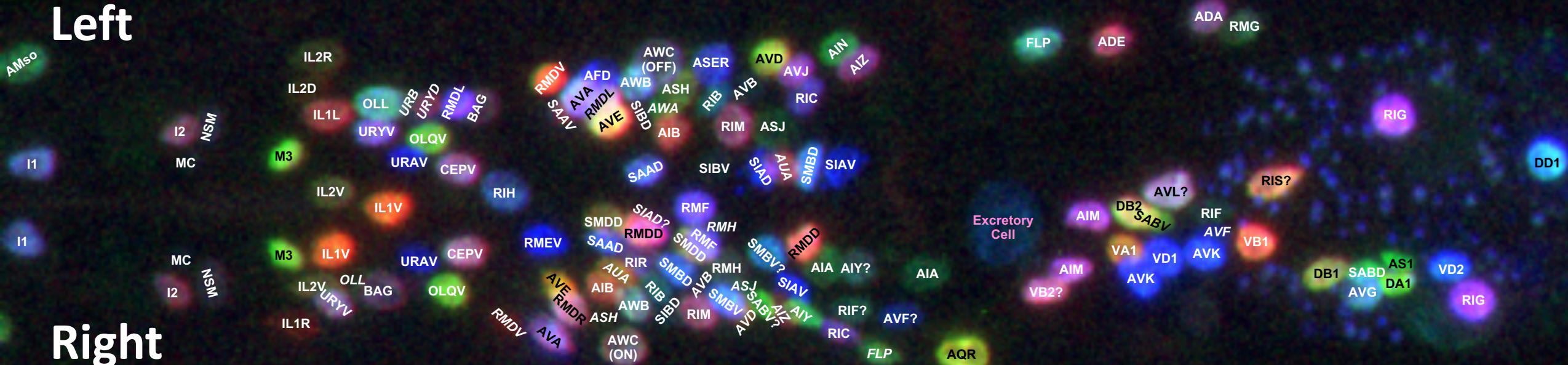
AWC::GCaMP6s = ON is slightly brighter than OFF.



12_YAaSP_L4a (Ventral)

Missing: SIBVR. Probably hidden due to twist. SMBVL may be hiding AIY & AIY may be I5.
AWC::GCaMP6s = ON is slightly brighter than OFF.

Left

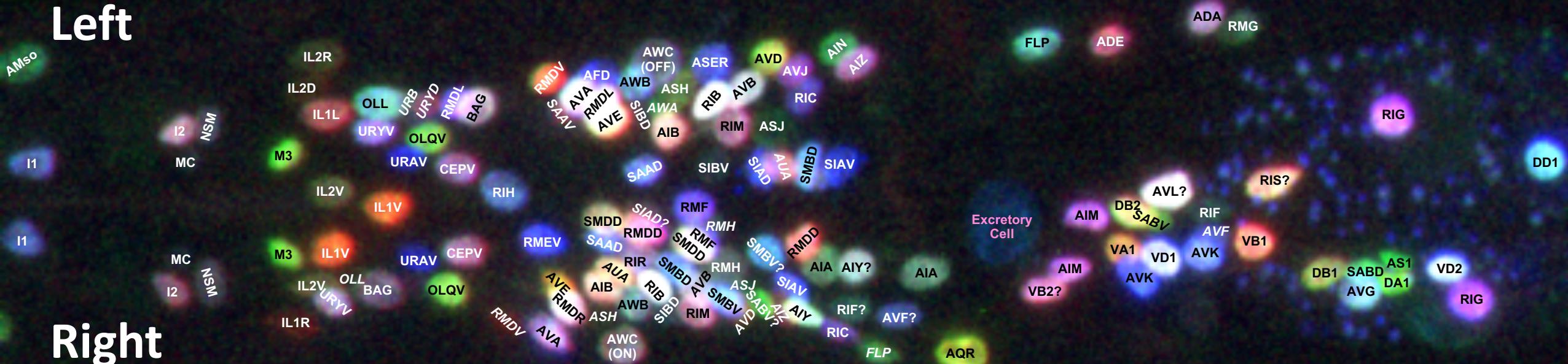


Right

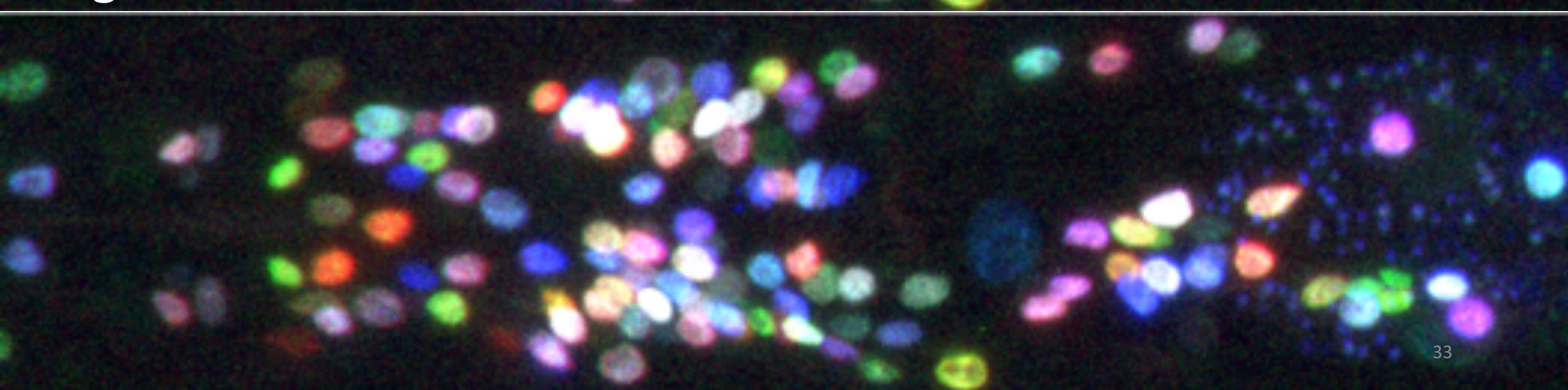
12_YAaSP_L4a (Ventral)

Missing: SIBVR. Probably hidden due to twist. SMBVL may be hiding AIY & AIY may be I5.
AWC::GCaMP6s = ON is slightly brighter than OFF.

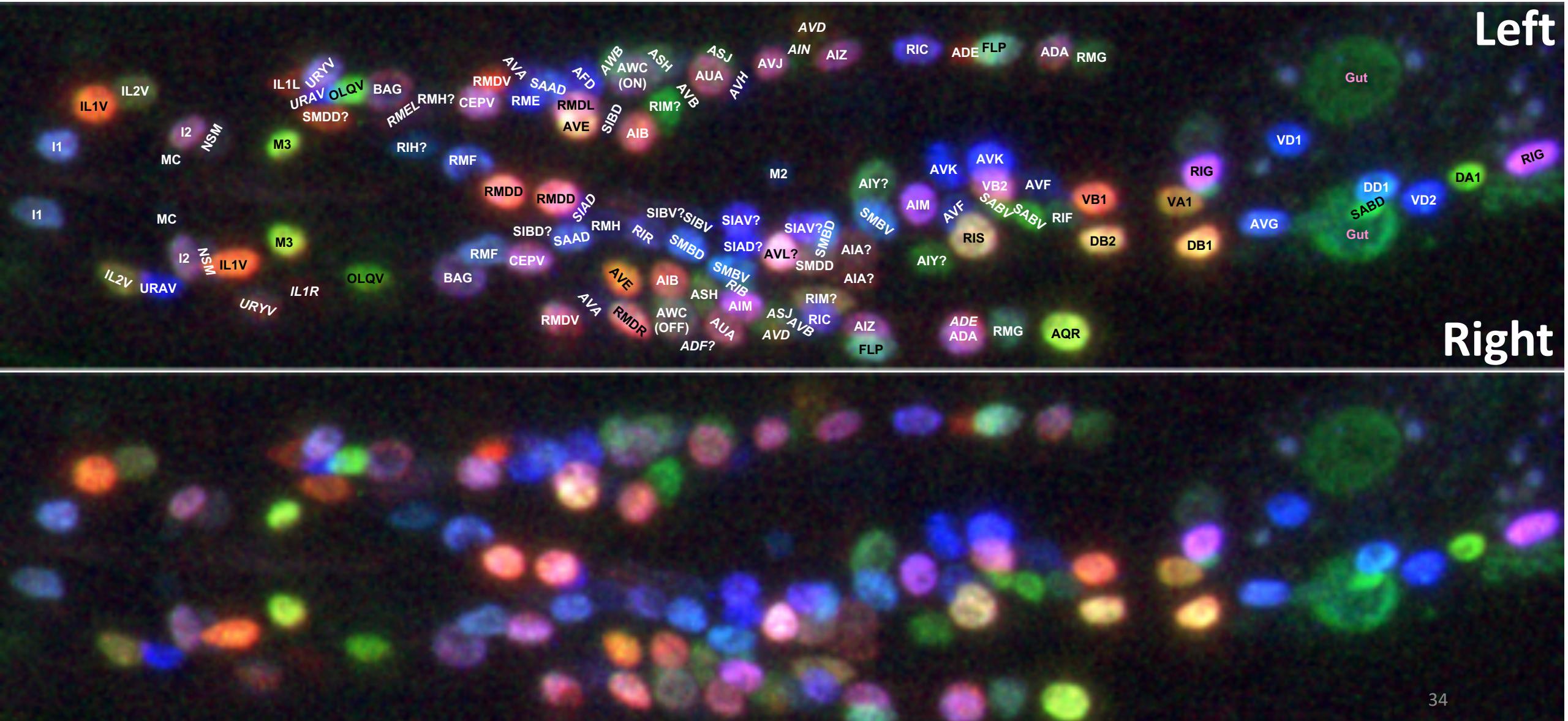
Left



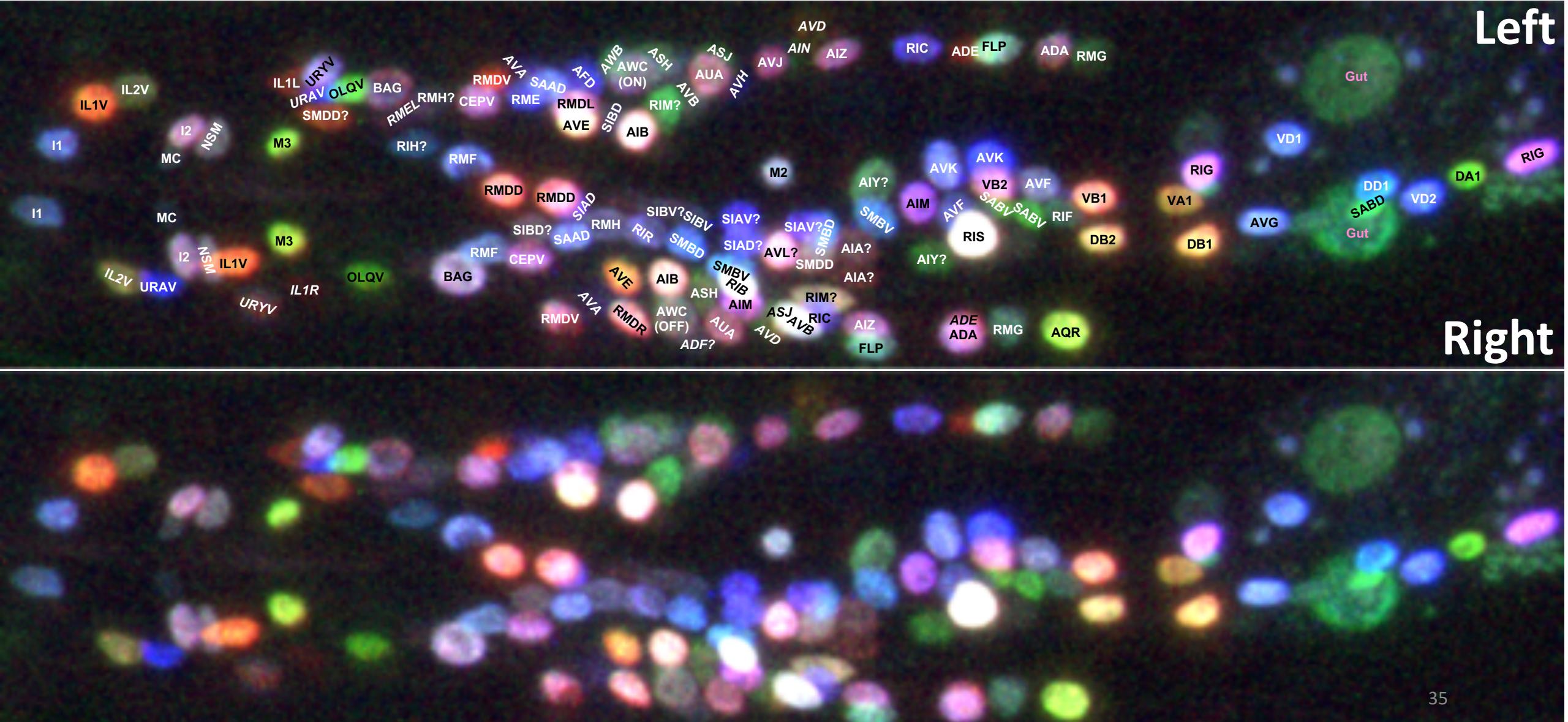
Right



15_YAaSP_YAaS (Ventral)



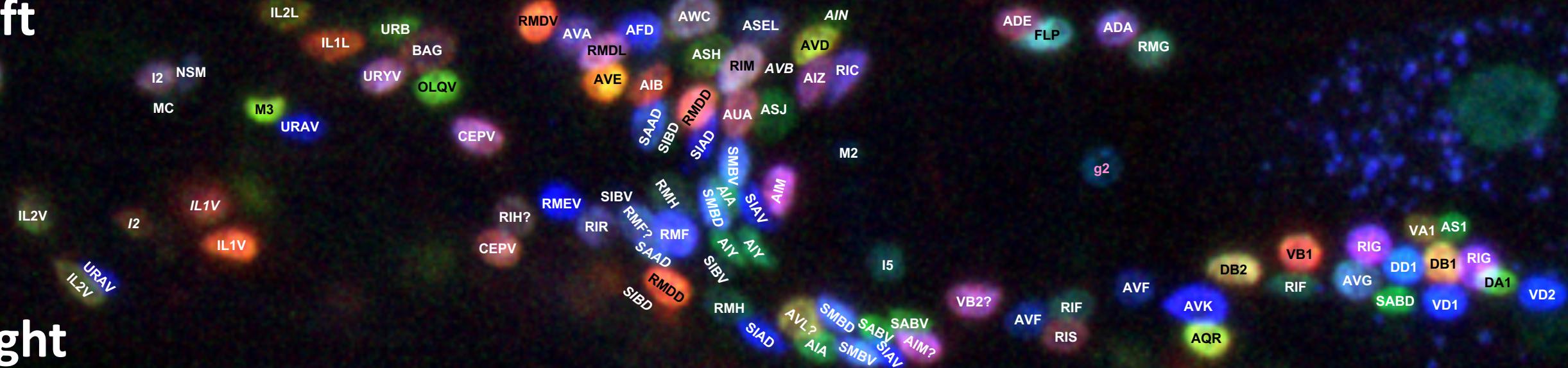
15_YAaSP_YAaS (Ventral)



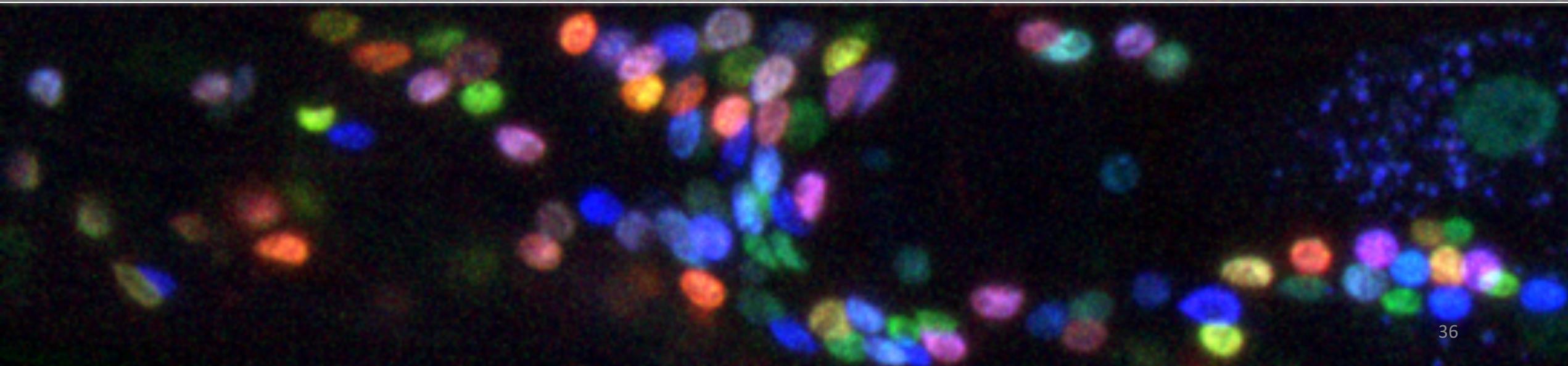
16_YAaSP (Ventral)

Missing: AVKL, SMDDL.

Left



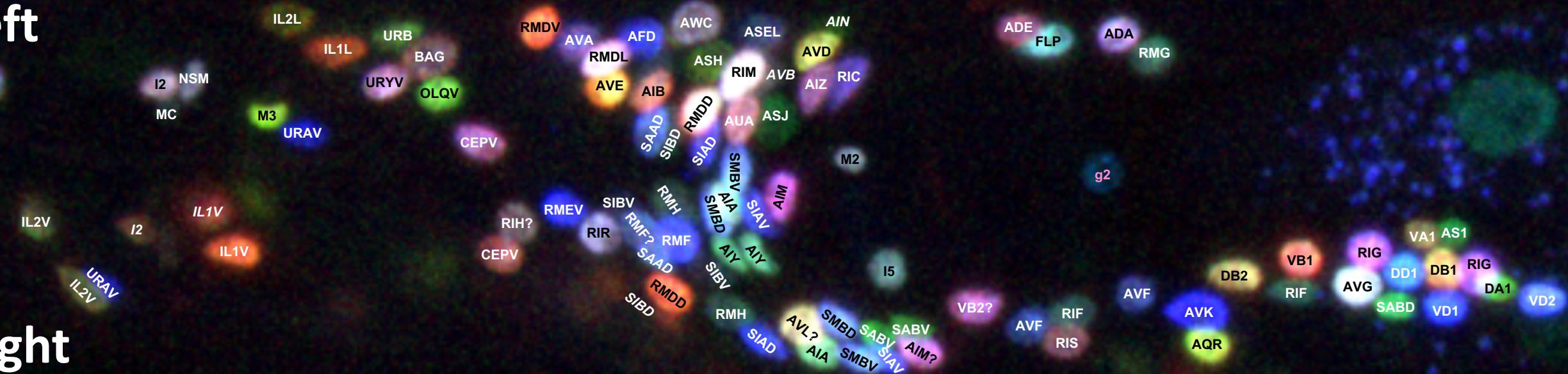
Right



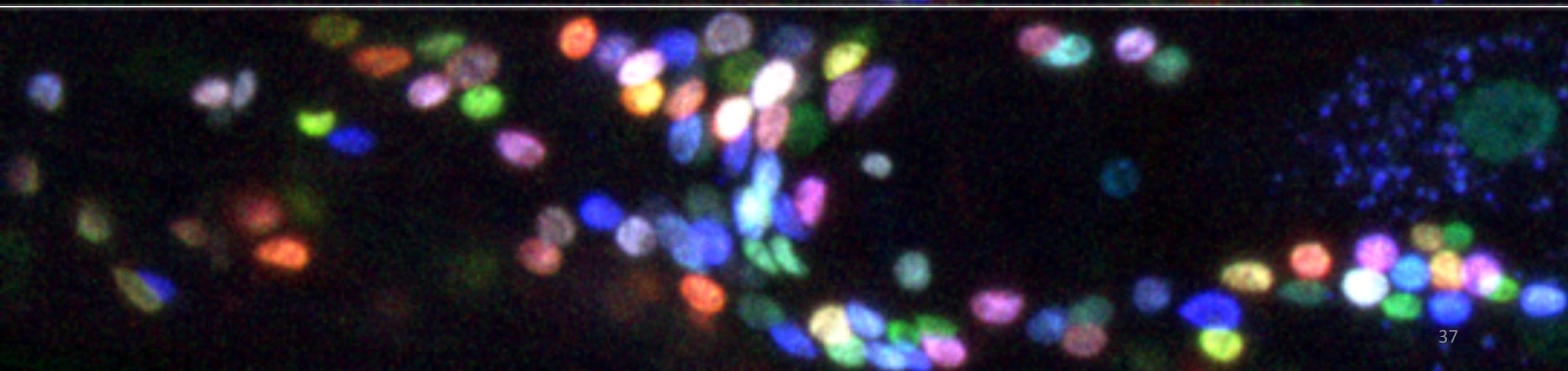
16_YAaSP (Ventral)

Missing: AVKL, SMDDL.

Left

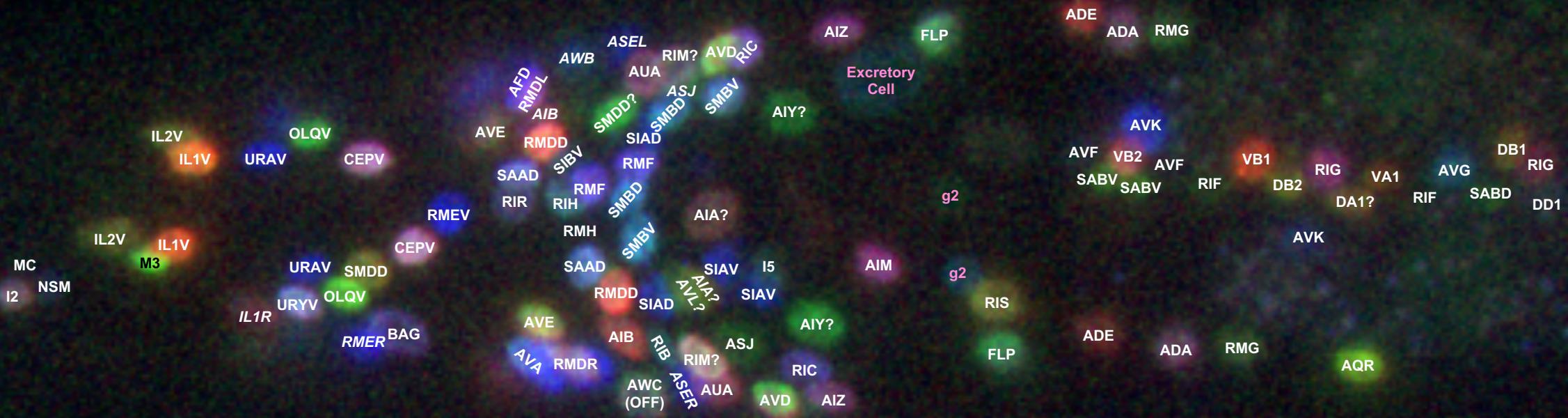


Right



29_YAaSP_L1ap (Ventral)

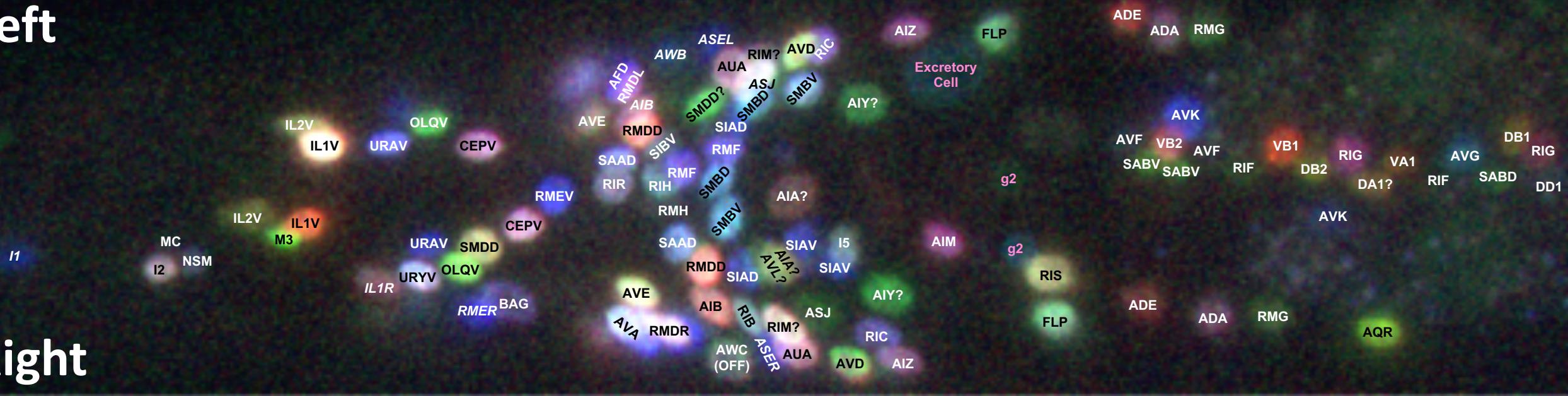
Left



Right

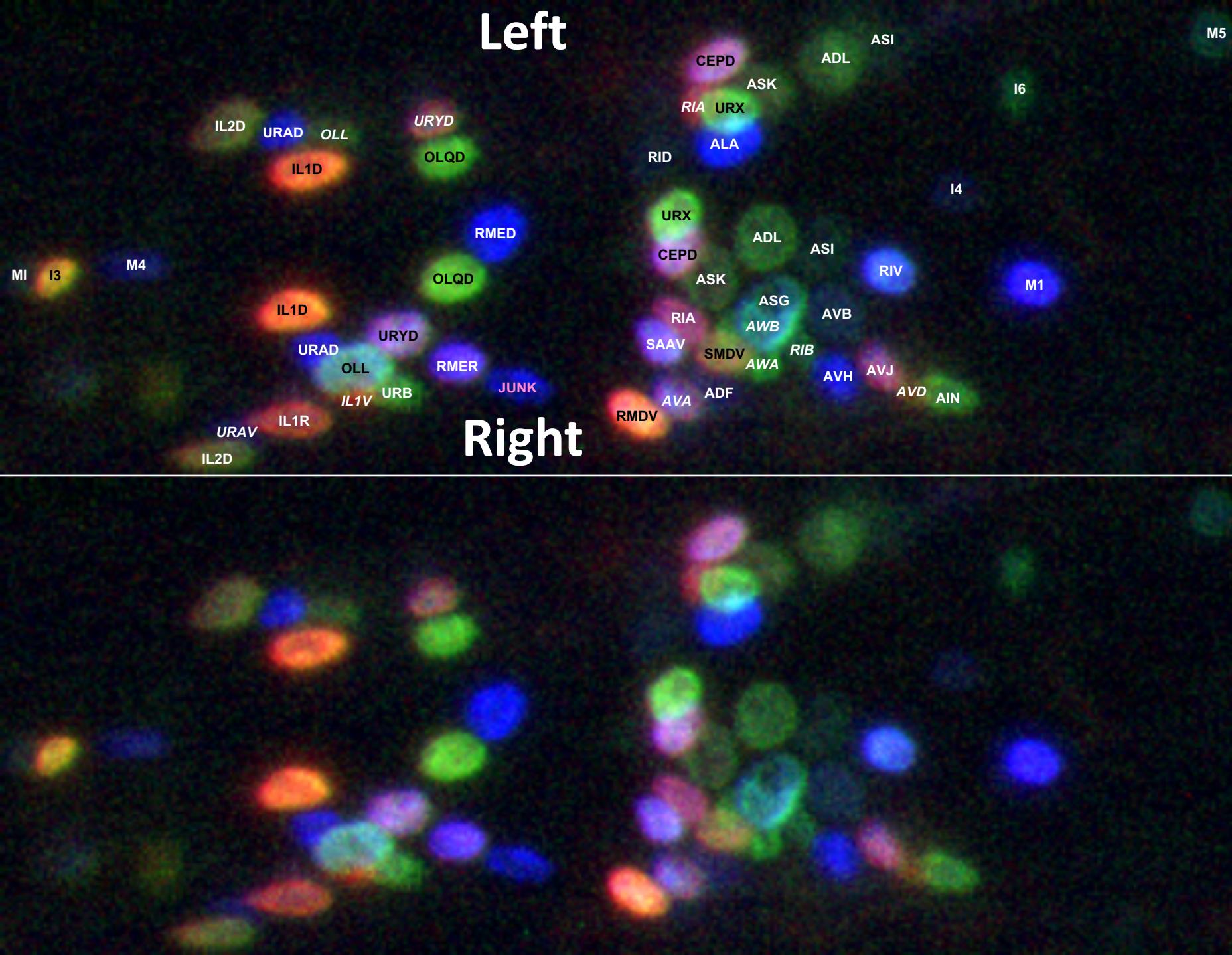
29_YAaSP_L1ap (Ventral)

Left

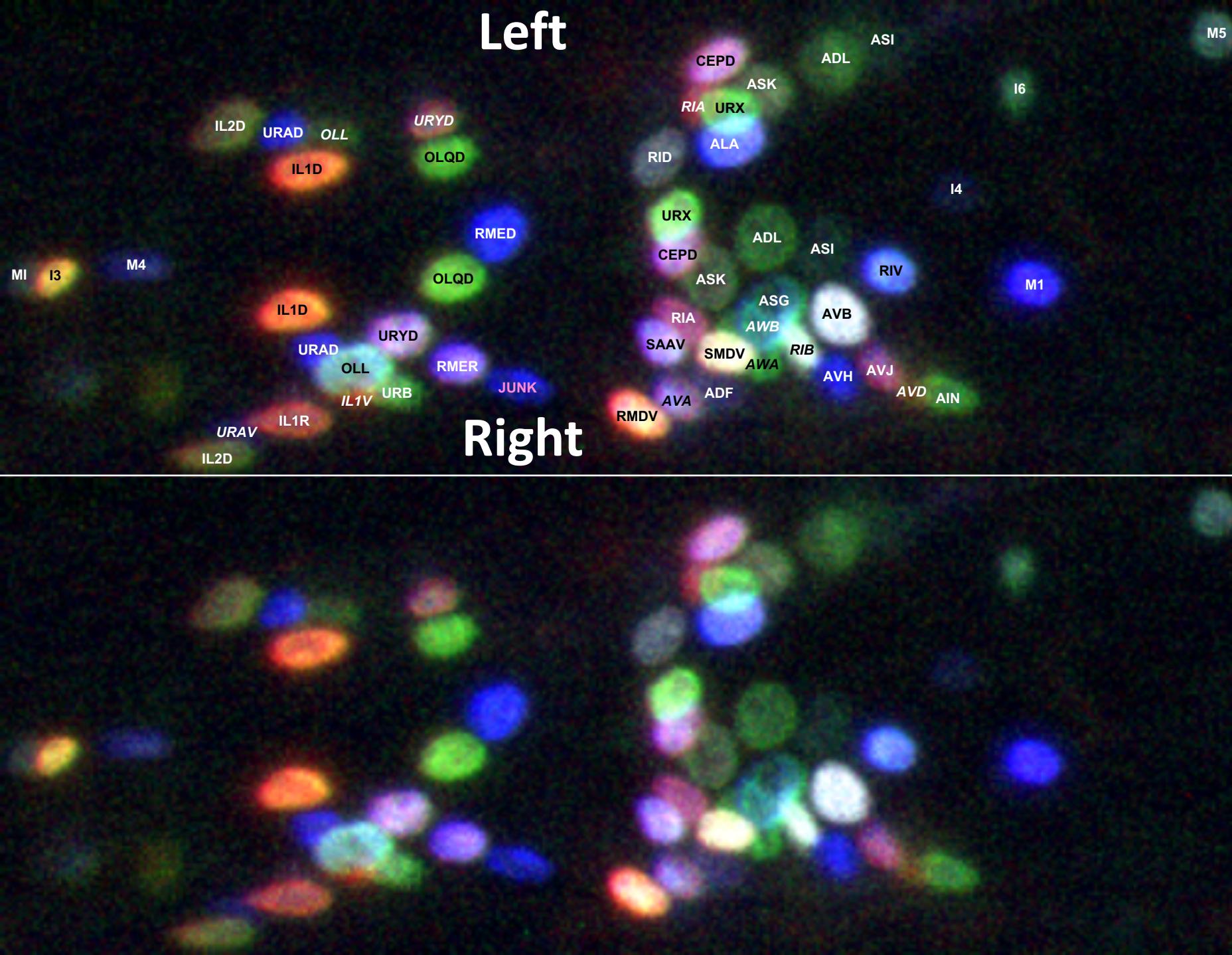


Right

8
— YASp (Dorsal)



8
Yasp (Dorsal)



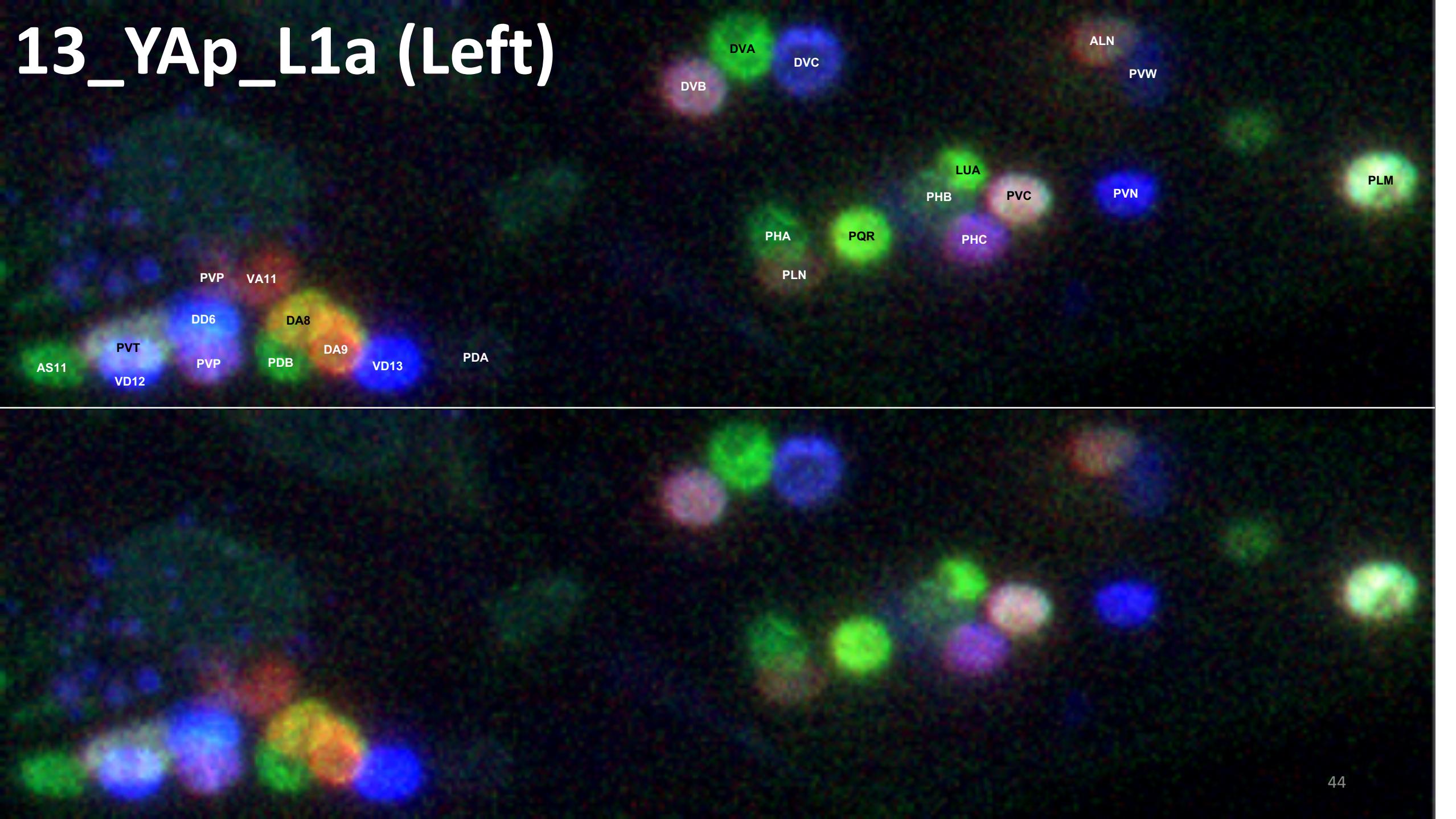
TAILS

L4 to Young Adult:

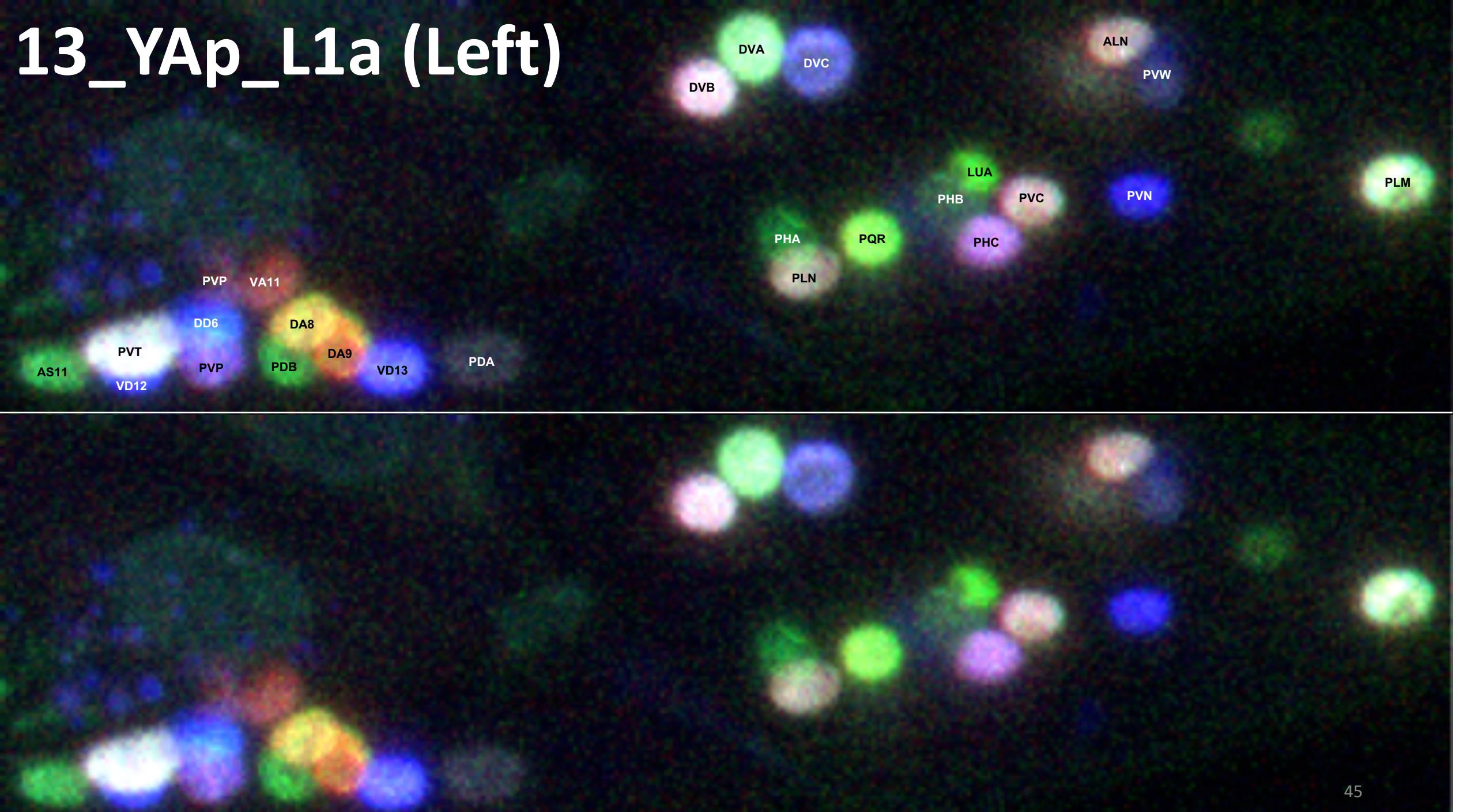
Tail – Lateral

Left Side

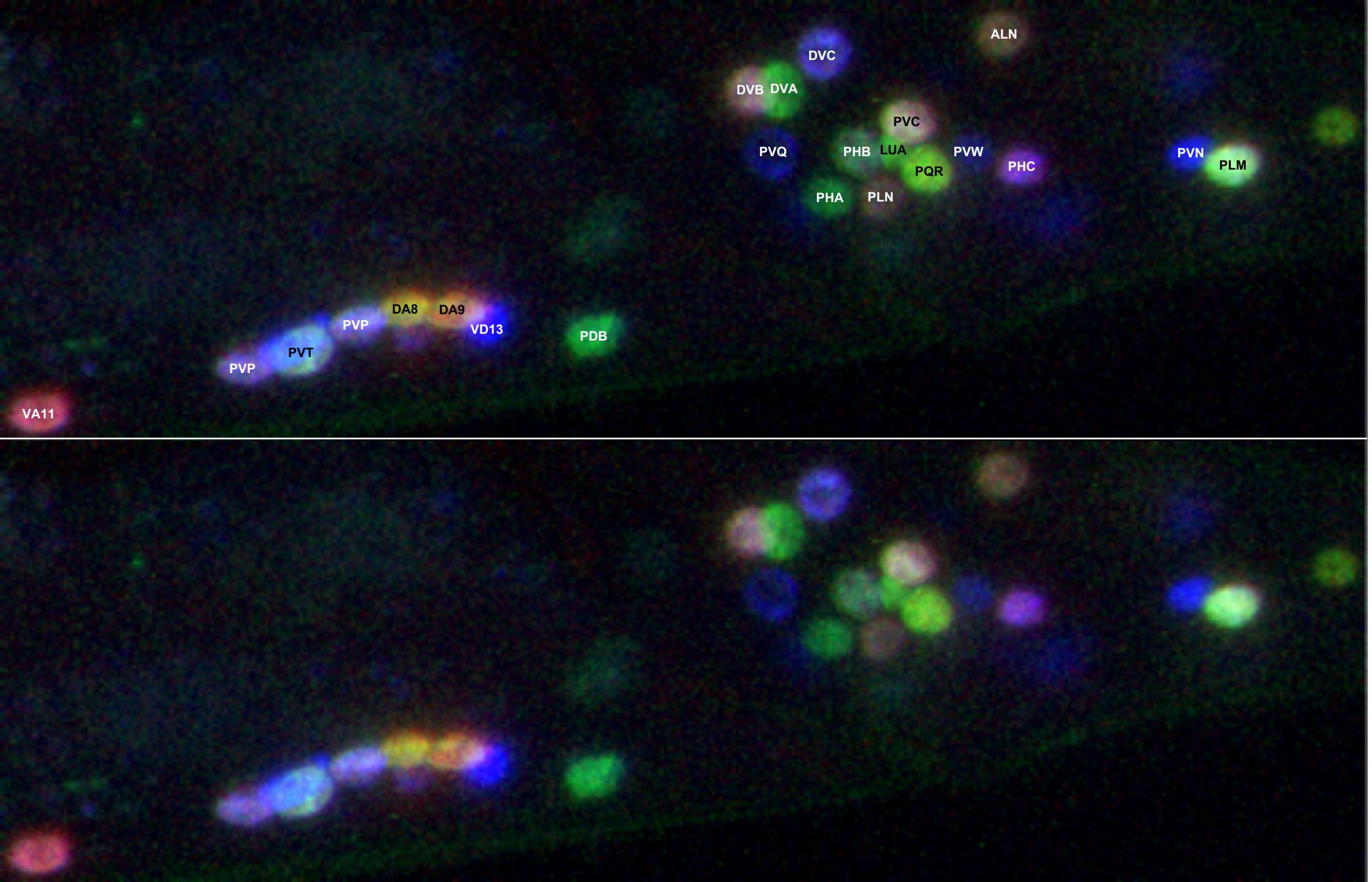
13_YAp_L1a (Left)



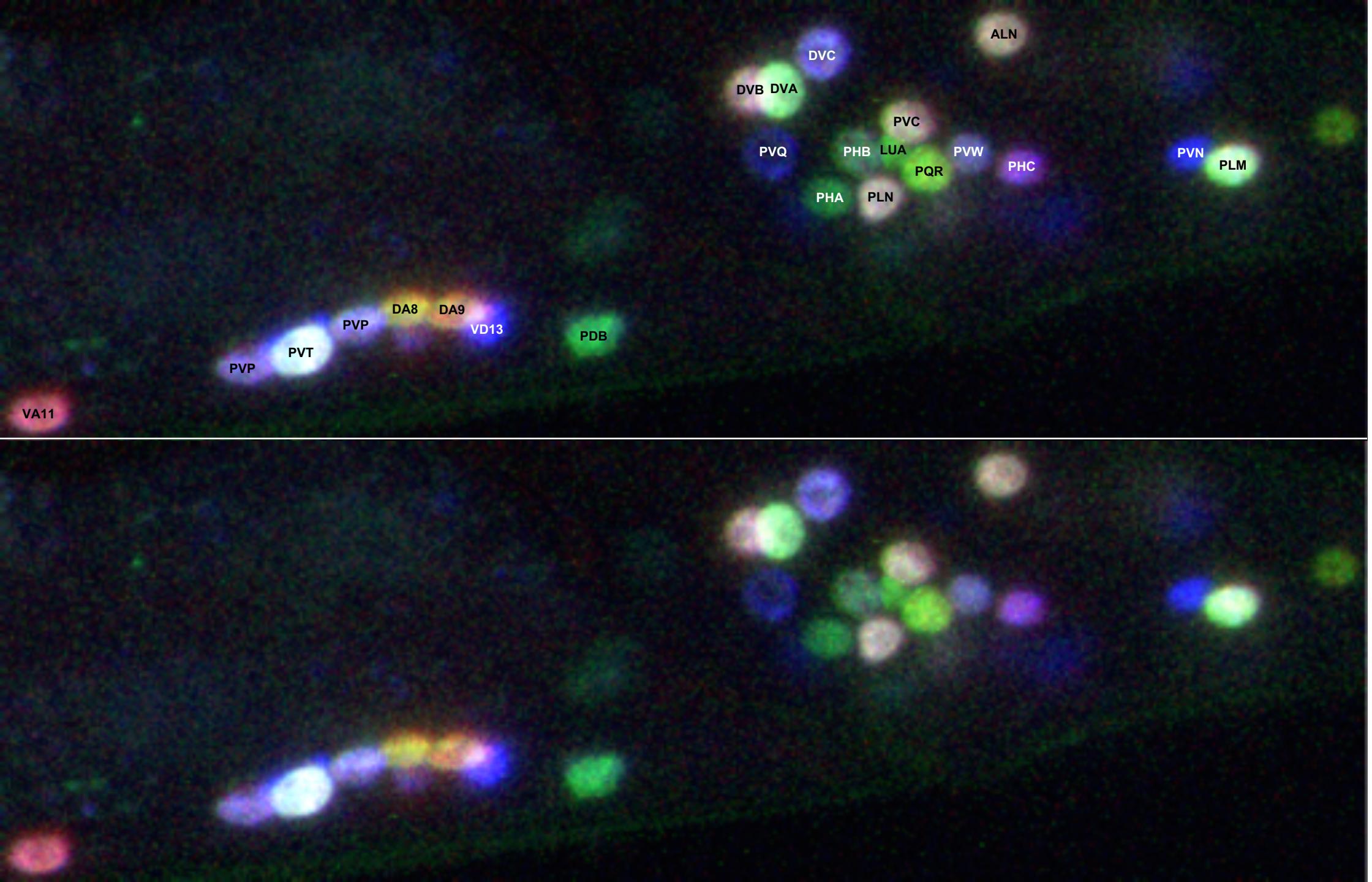
13_YAp_L1a (Left)



26 - Yap (Left)



26 - Yap (Left)

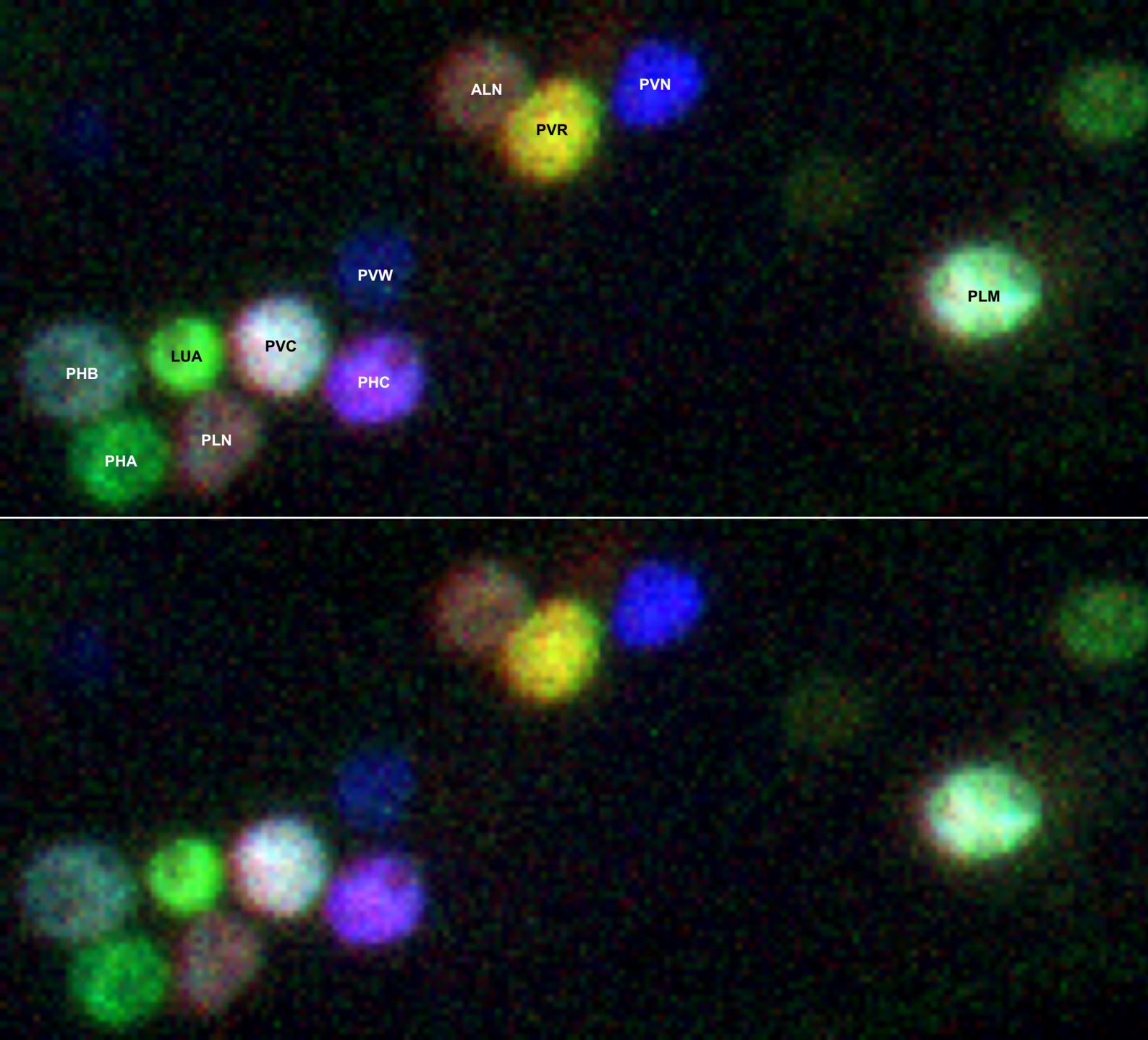


L4 to Young Adult:

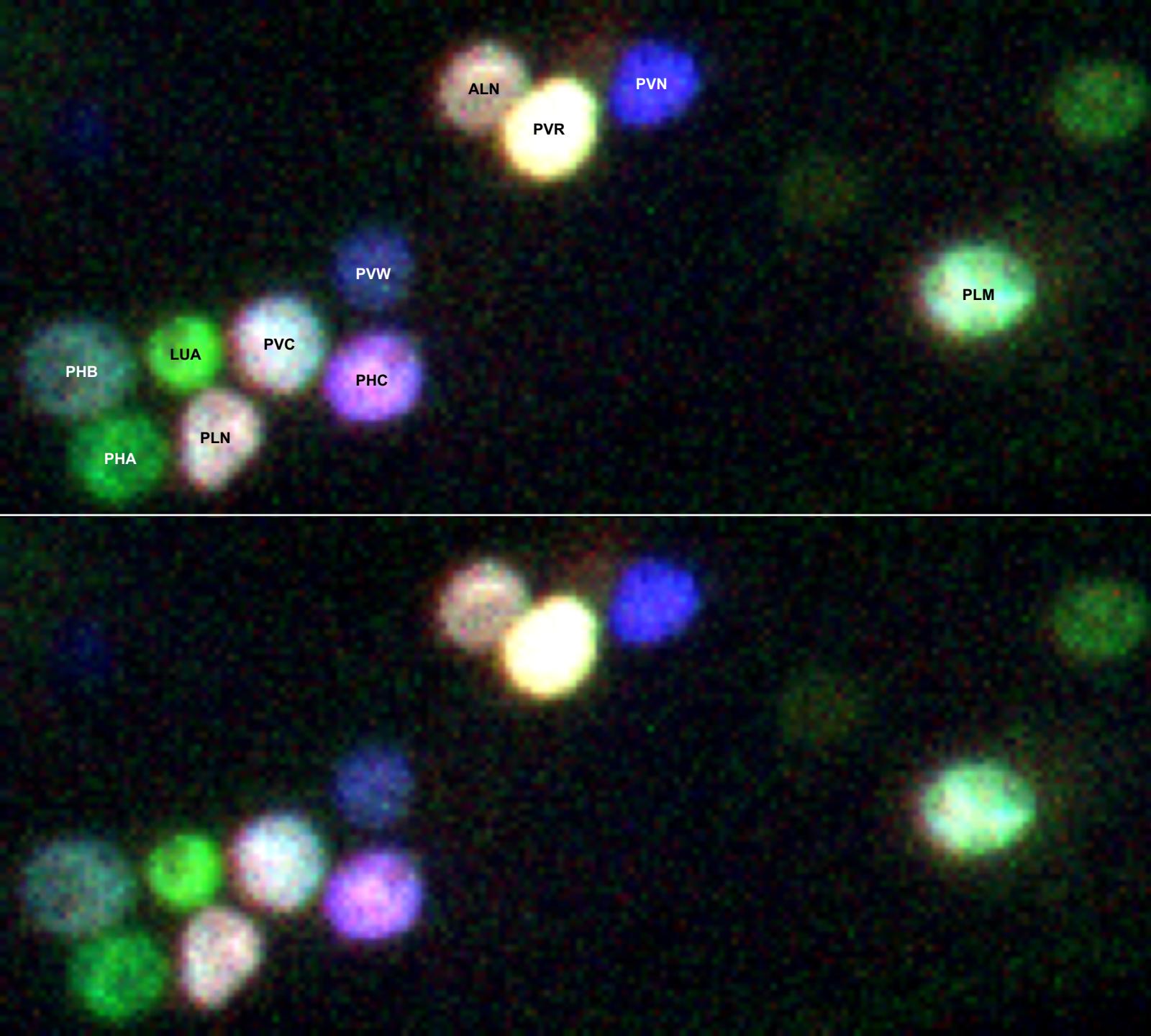
Tail – Lateral

Right Side

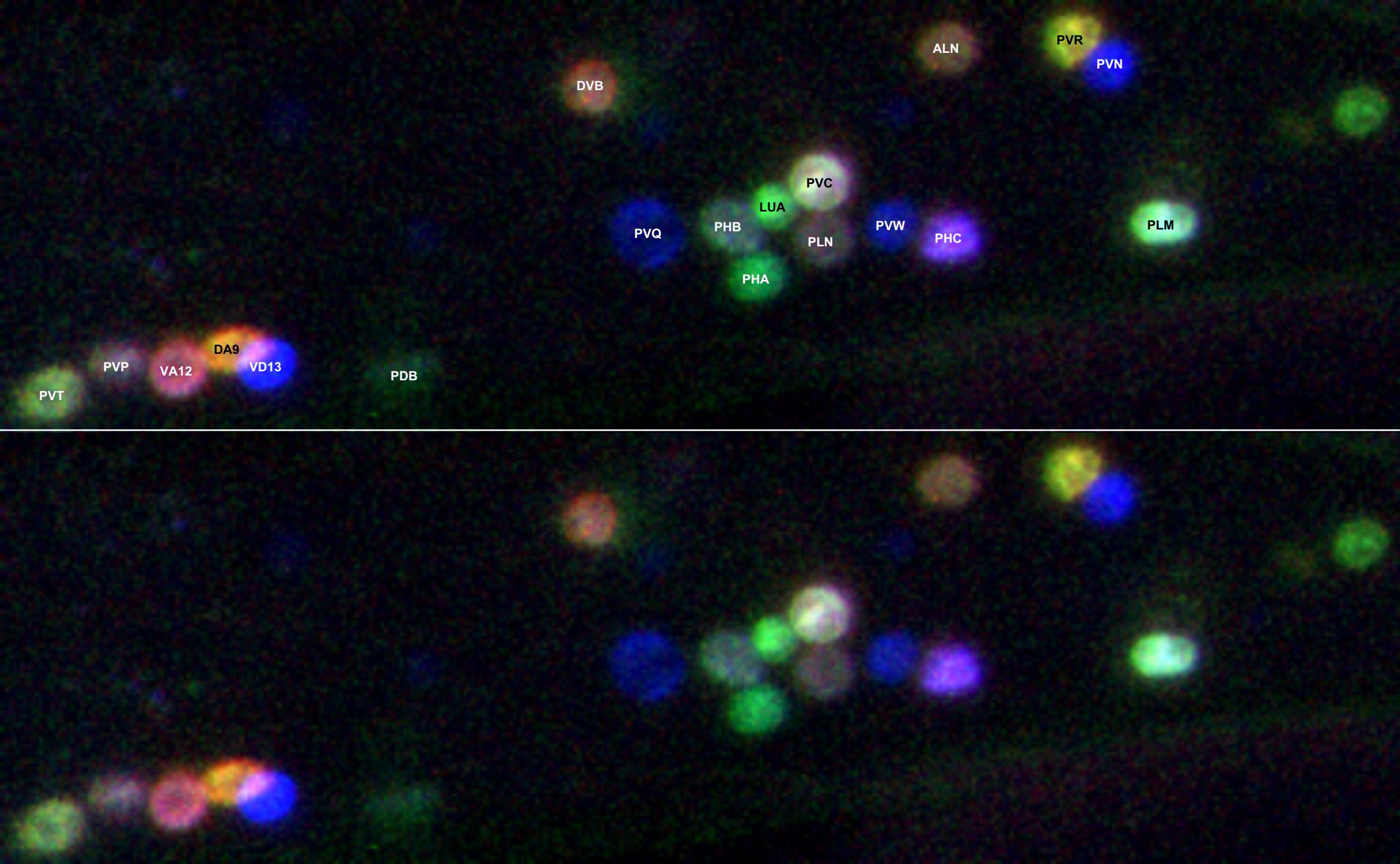
13_Yap_L1a (Right)



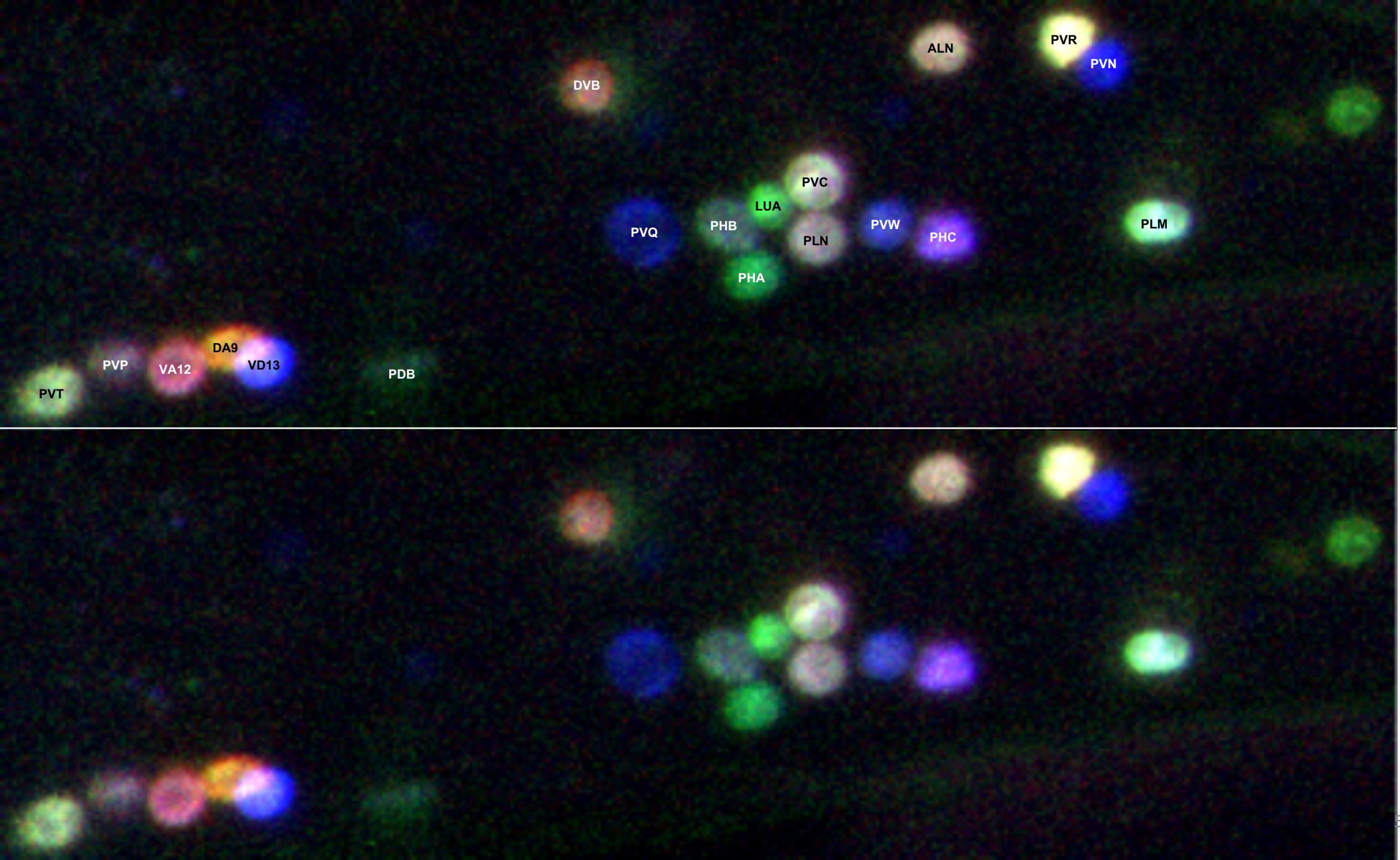
13_Yap_L1a (Right)



26 - YAP (Right)



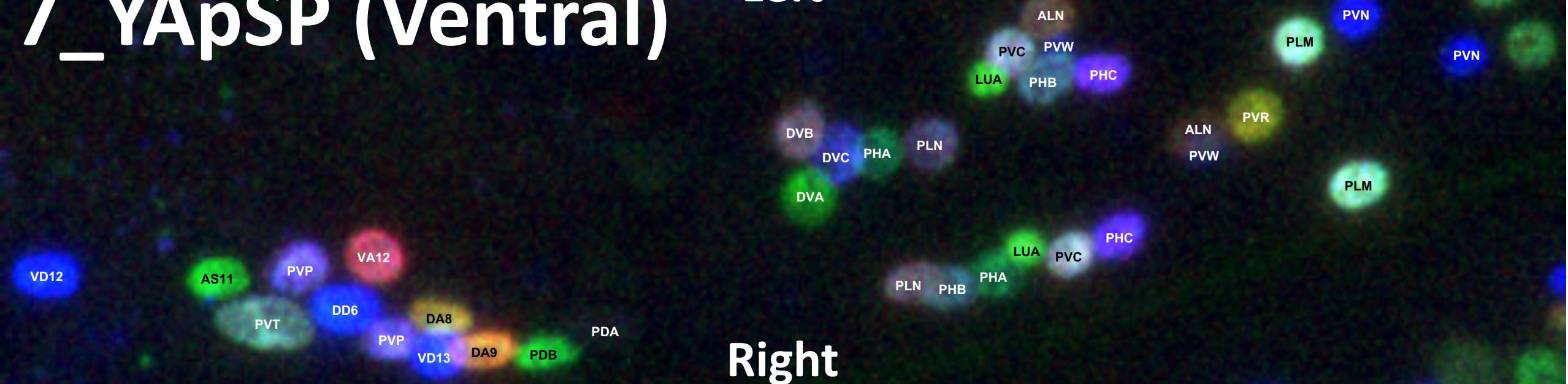
26 - YAP (Right)



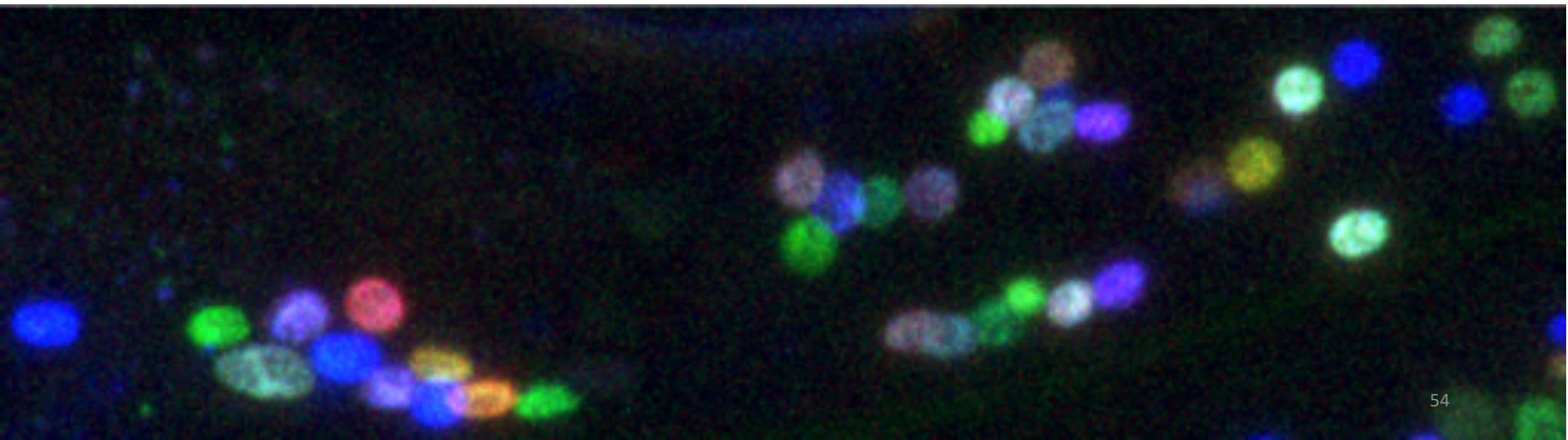
L4 to Young Adult:
Tail – Dorsal-Ventral

7_YApSP (Ventral)

Left

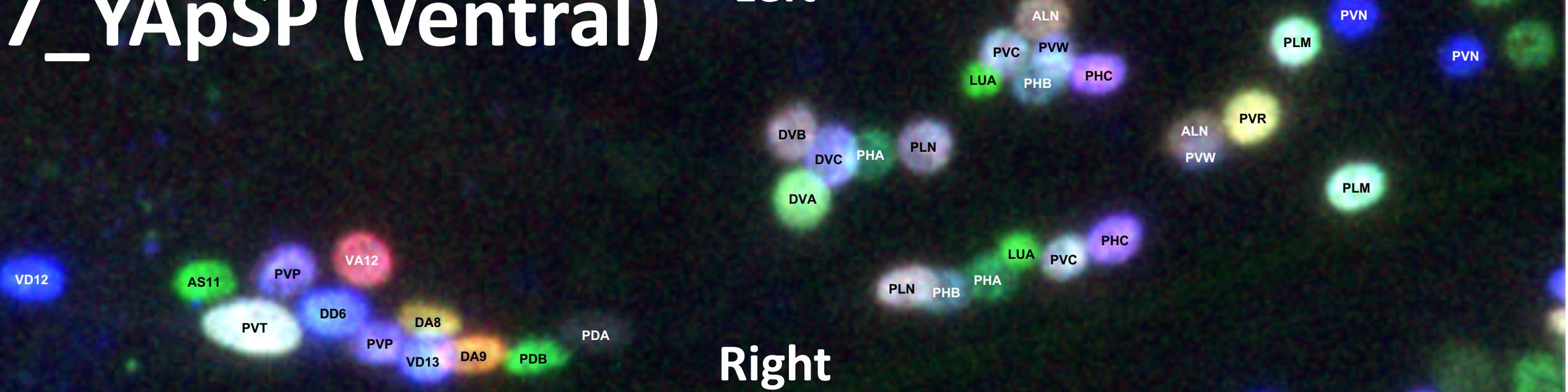


Right

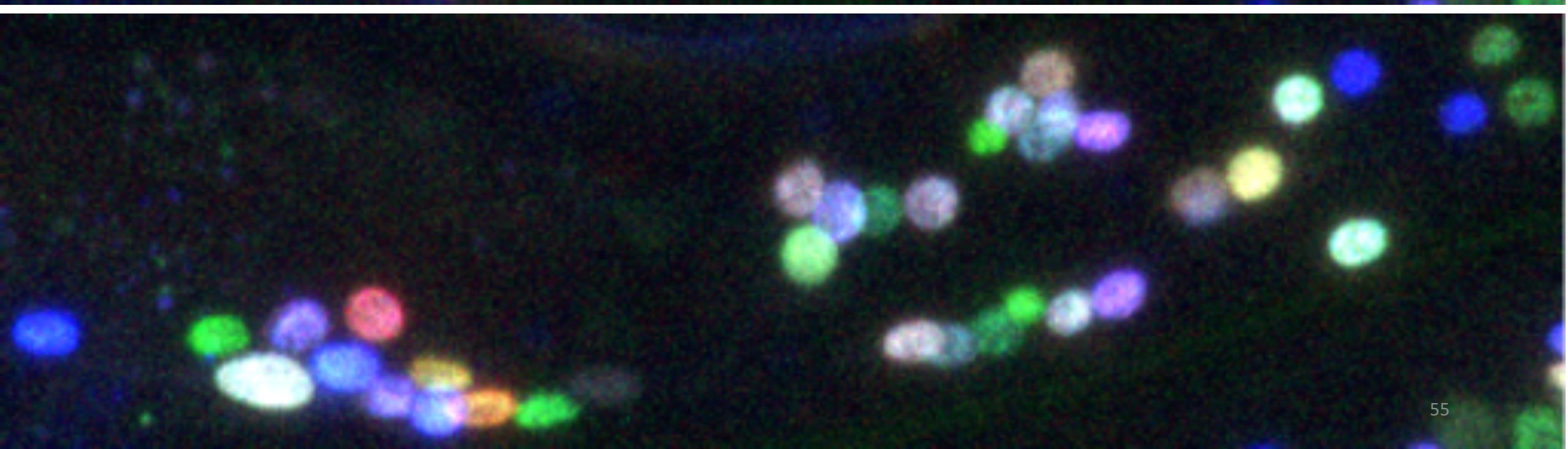


7_YApSP (Ventral)

Left

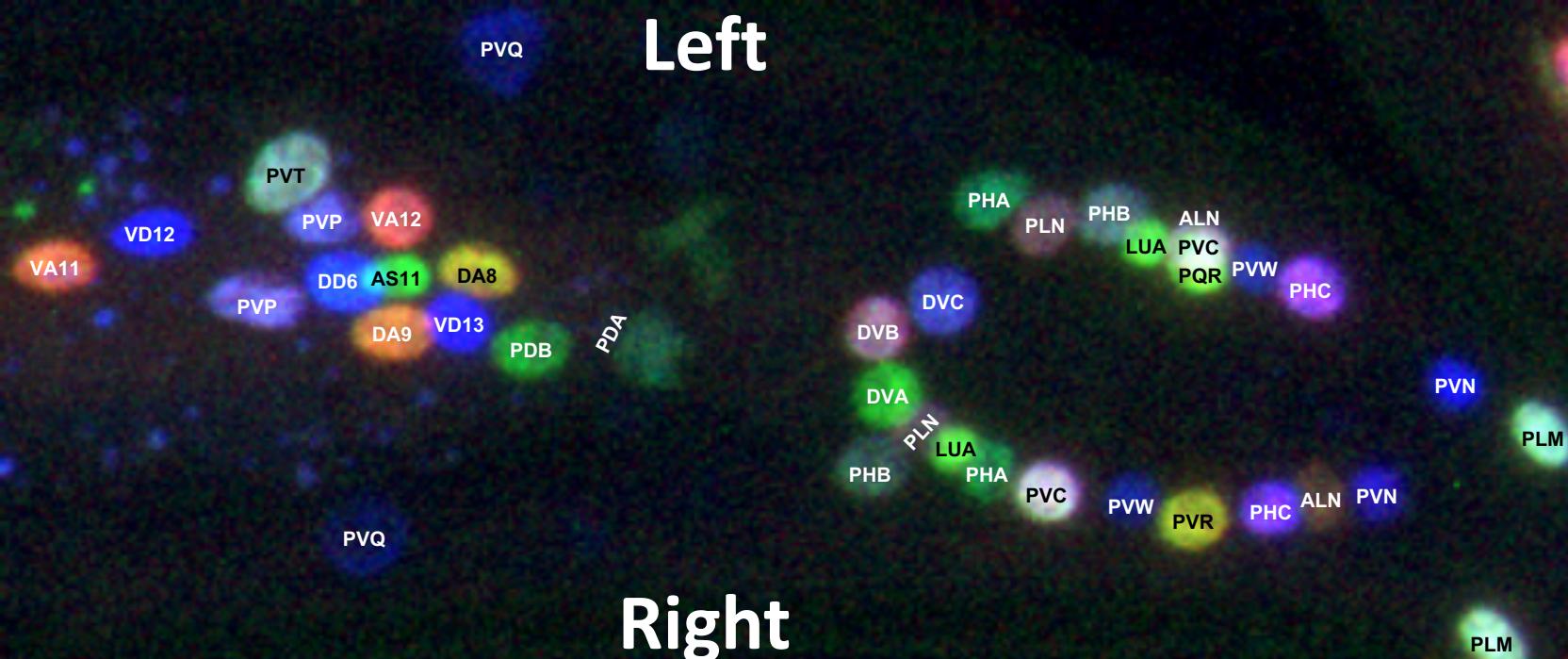


Right

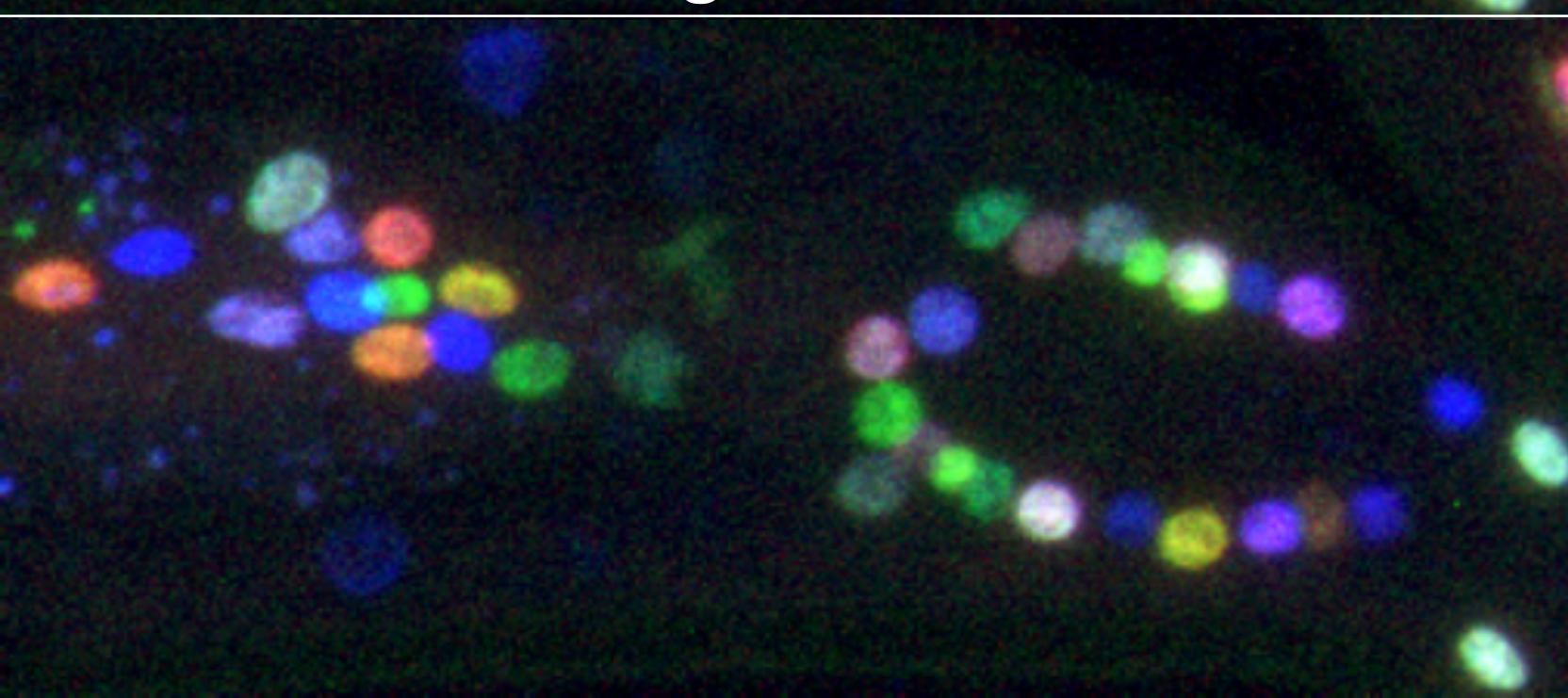


10⁻
YAsP (ventral)

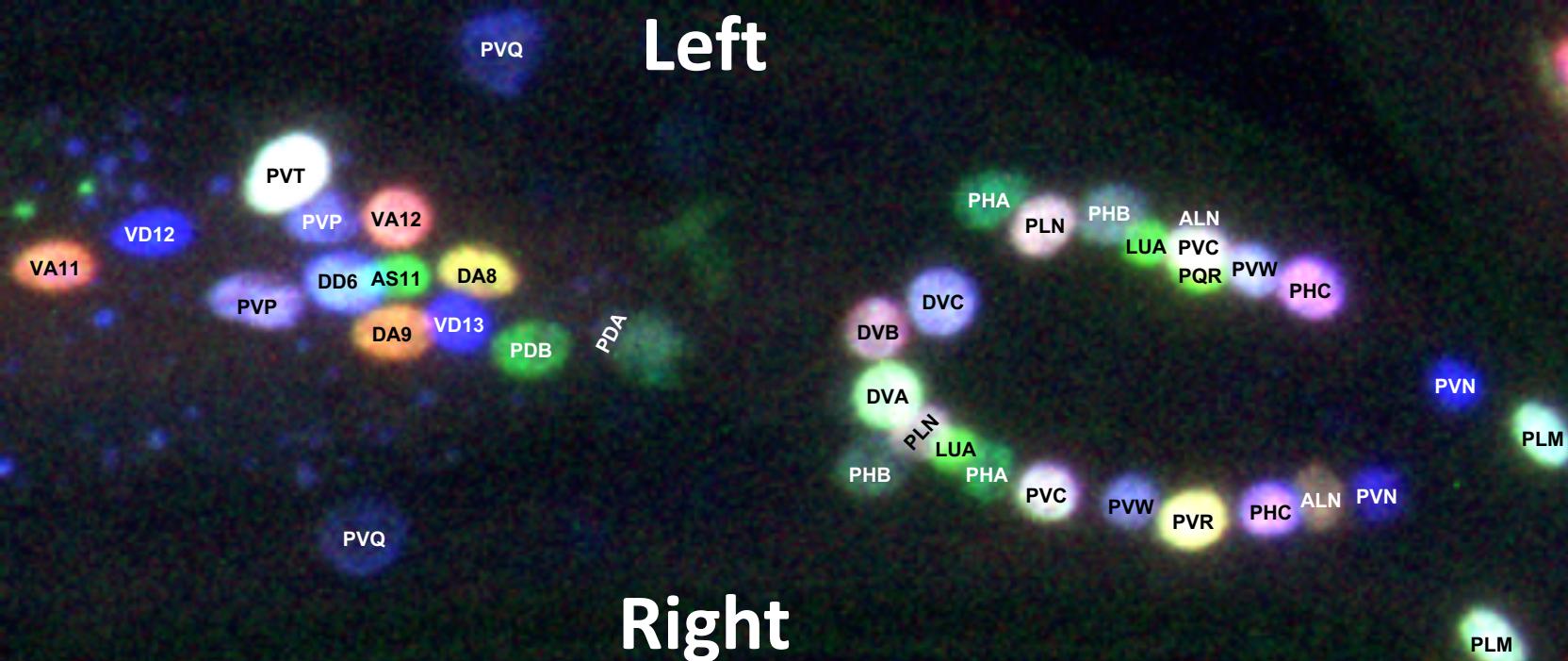
Left



Right

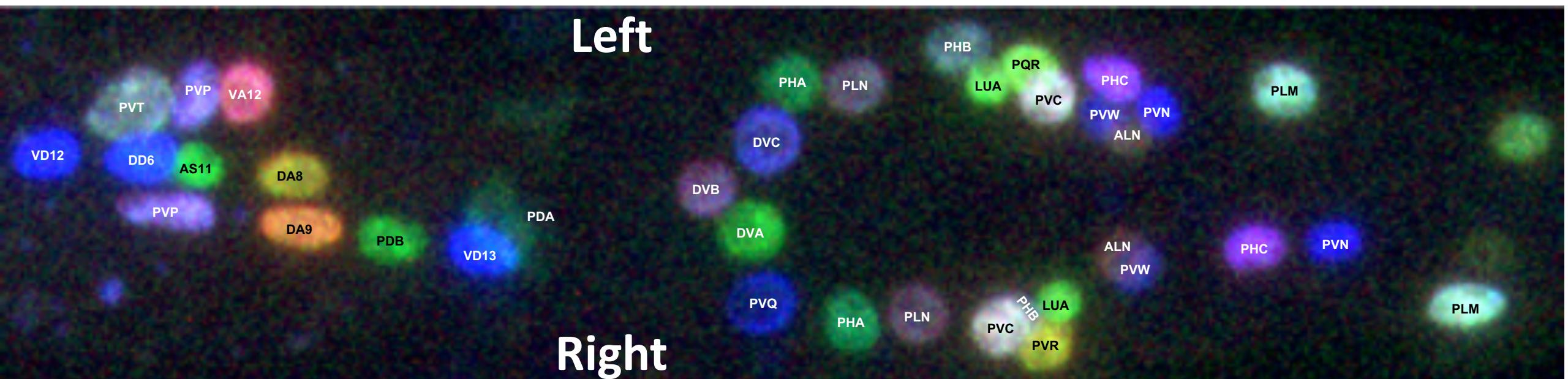


10⁻
YAsP (ventral)

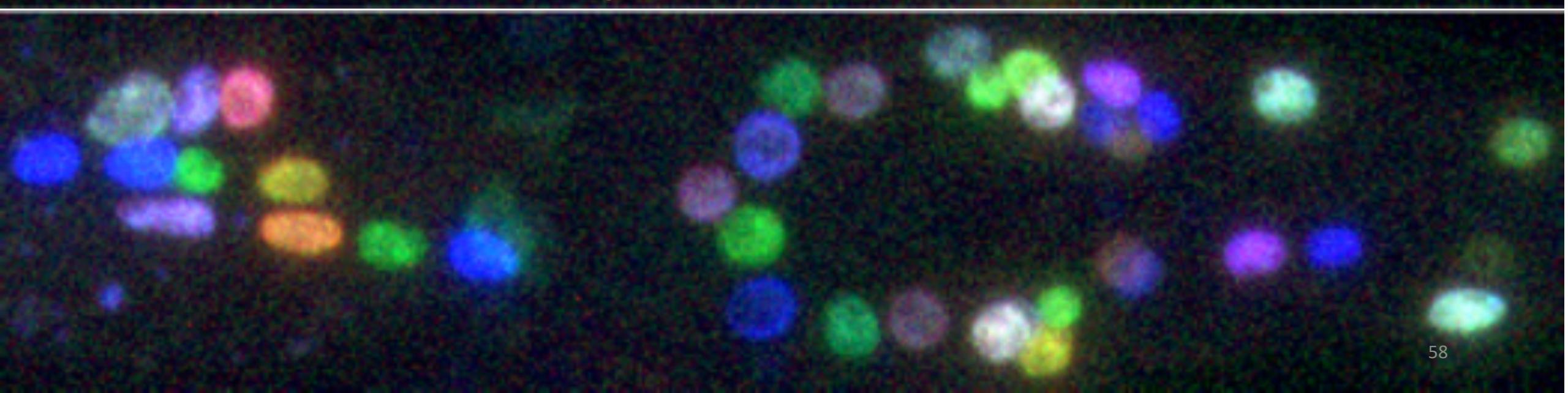


12_YApSP (Ventral)

Left

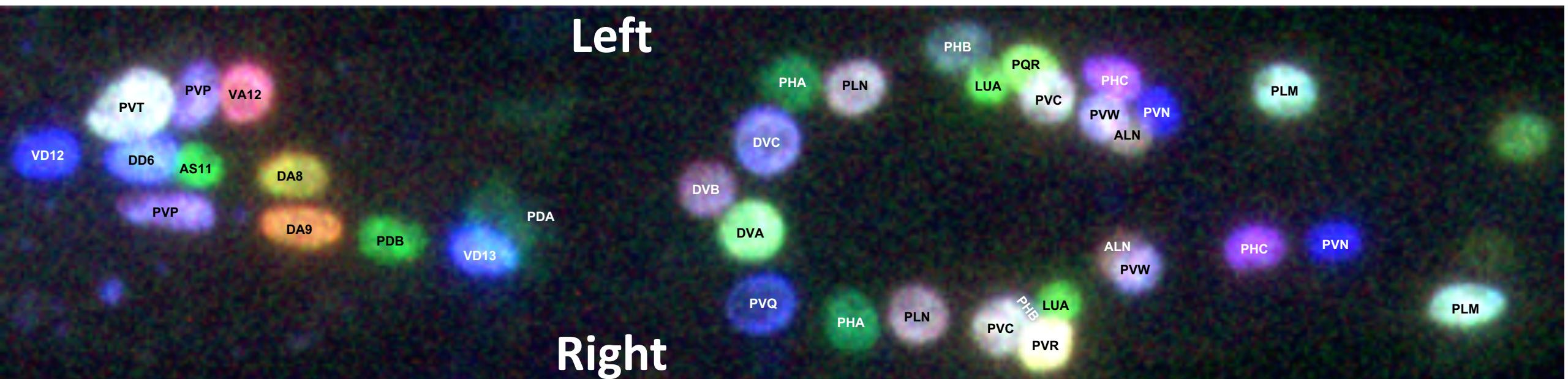


Right



12_YApSP (Ventral)

Left



Right

