# tSNR Summary (N=6)

Mean tSNR

|  |  |  |  |
| --- | --- | --- | --- |
| **Volume** | **Mean** | **Max** | **Min** |
| ABCD | 35.1 | 123.0 | 0.1 |
| In-plane | 29.2 | 93.0 | 0.2 |
| HCP | 23.5 | 77.3 | 0.1 |
| **Surface** | | | |
| ABCD | 60.2 | 182.2 | 2.3 |
| In-plane | 48.9 | 130.8 | 3.2 |
| HCP | 46.6 | 141.6 | 2.1 |

ABCD in-plane HCP ABCD in-plane HCP

**Surface**

**Volume**

70

60

50

40

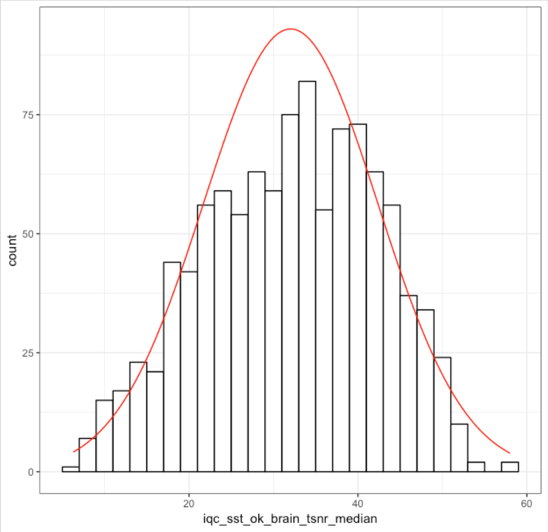
30

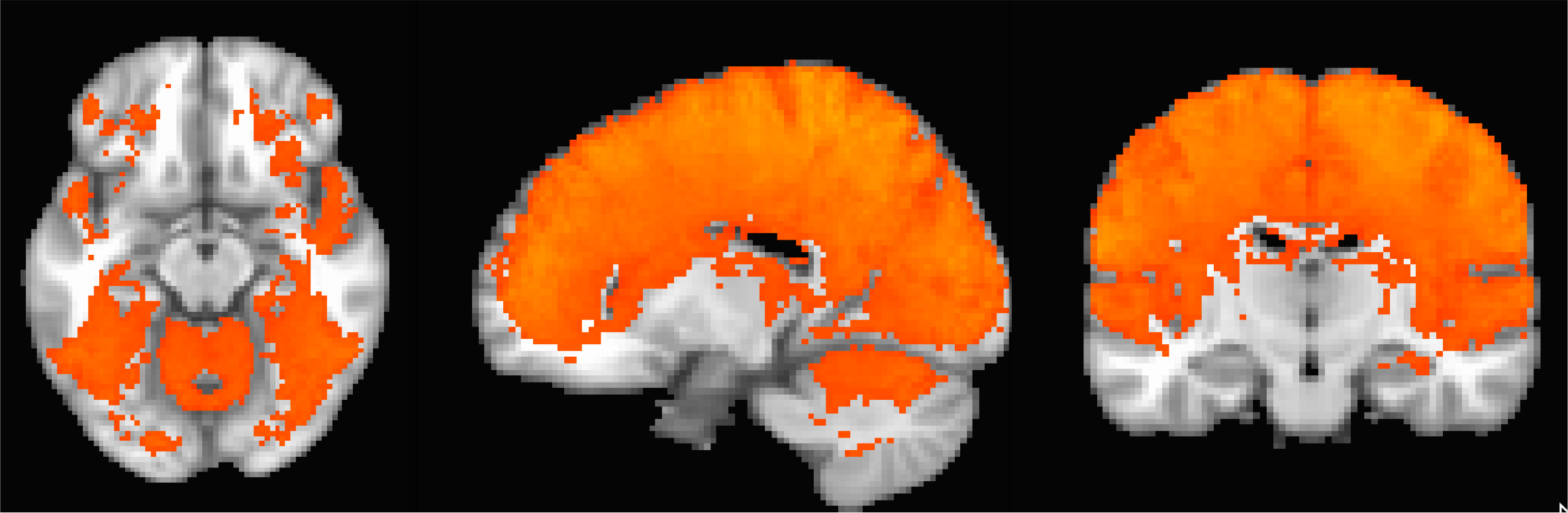
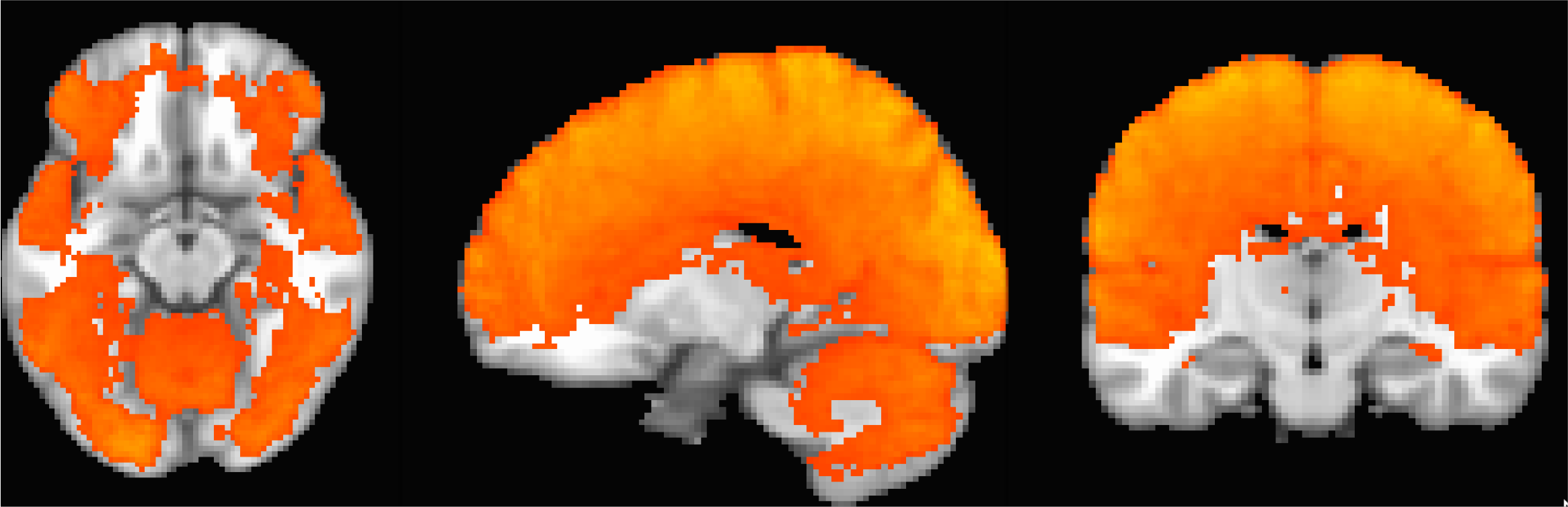
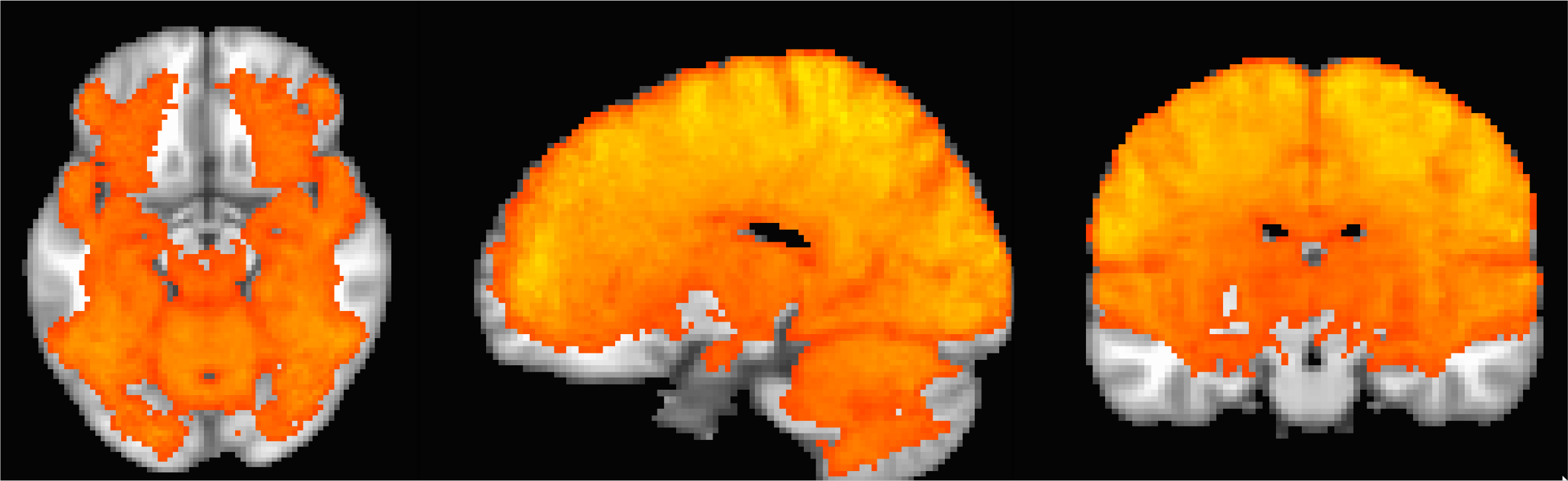
20

10

0

# Median tSNR from ABCD Study during SST (MR750 subset) for reference

Mean = 32



## ABCD

850ms 2.4mm Mux=6

## In-plane

900ms 2.4mm Mux=4 Inplane=2

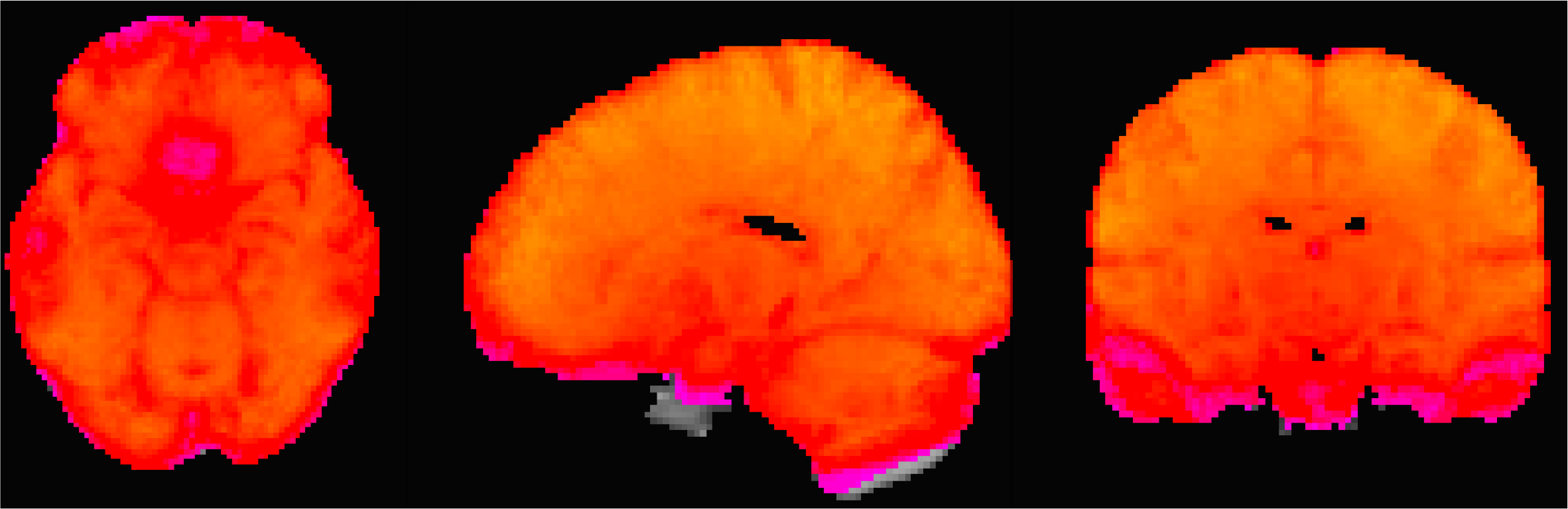
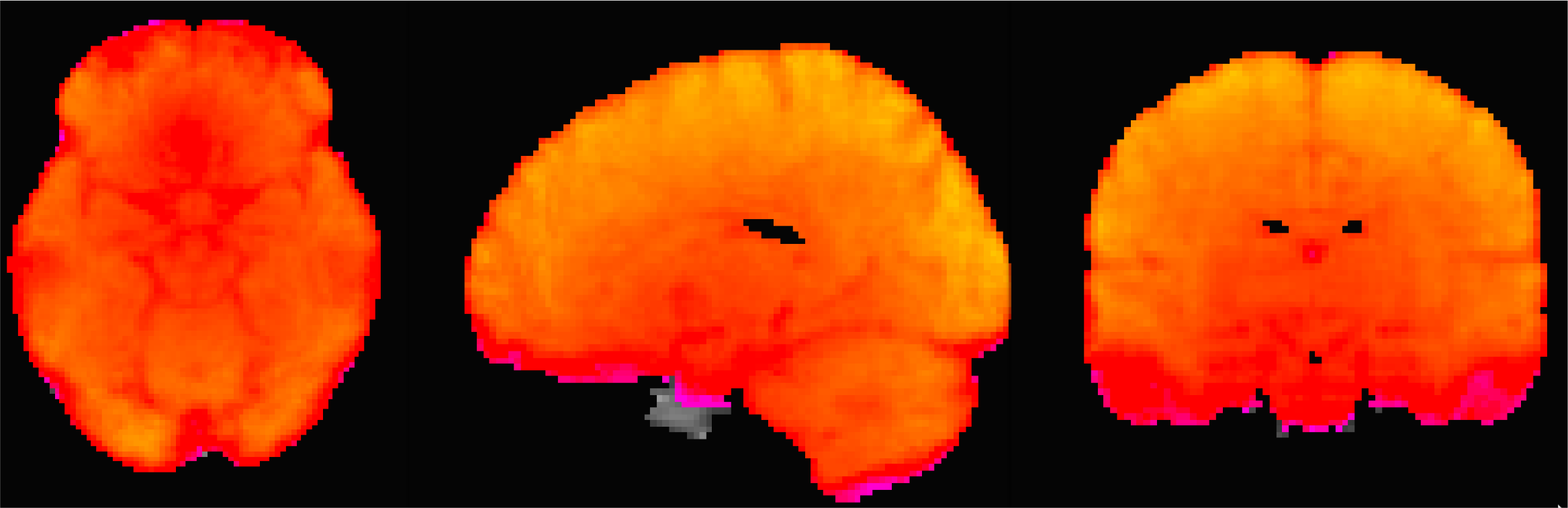
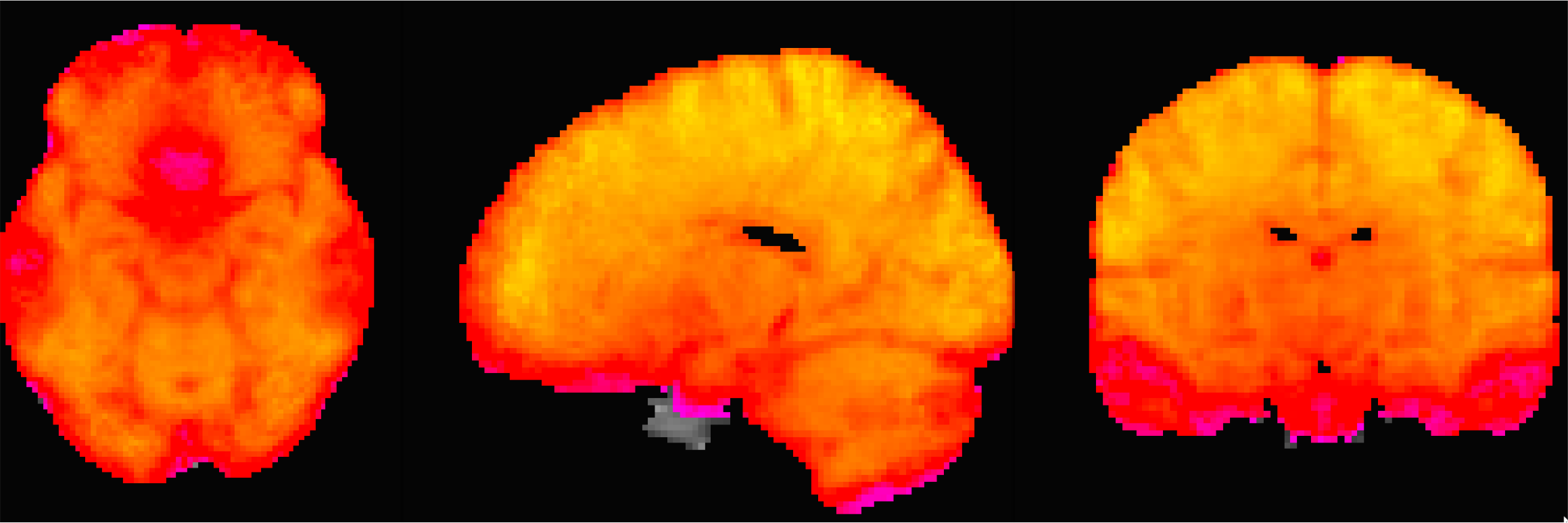
## HCP

900ms 2.0mm Mux=6

**tSNR average (n=6)** Threshold tSNR>20 max color=80

80

20



## ABCD

850ms 2.4mm Mux=6

## In-plane

900ms 2.4mm Mux=4 Inplane=2

## HCP

900ms 2.0mm Mux=6

**tSNR average (n=6)**

unthresholded max color=80

80

0

# Stop Signal Task data

* 2 runs of the stop-signal ABCD task for each sequence
* First ABCD, then in-plane, then HCP
* Indicate direction of arrow on go trial, inhibit response on stop signal

**+**

**Go**

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**+**

**ITI**

**Stop**

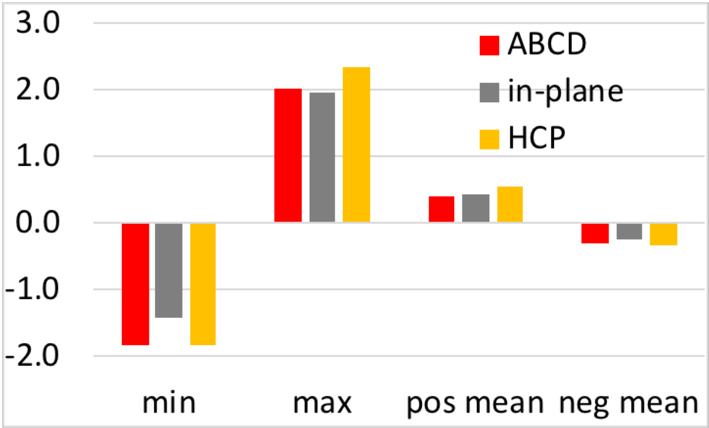
**ITI**

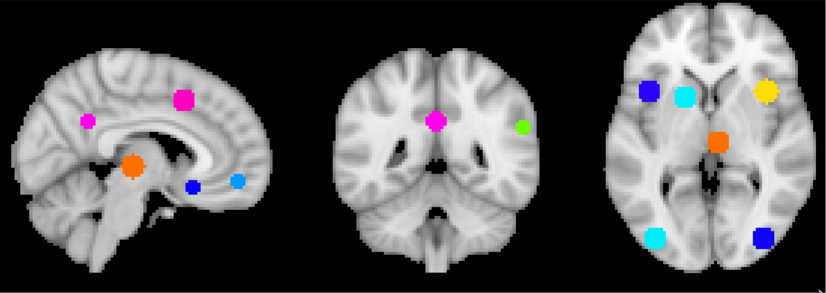
Main contrast of interest – correct stop vs. correct go

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Whole brain min/max, mean of positive/negative values by sequence



Meta-analysis peak ROIs

MNI peaks from meta-analysis (8mm sphere). Plus extra PCC, sgACC, and vmPFC regions

# ROI Activity

bar= mean +/- SD of voxels within sphere line plot = max of voxels within sphere

2



1.5

1

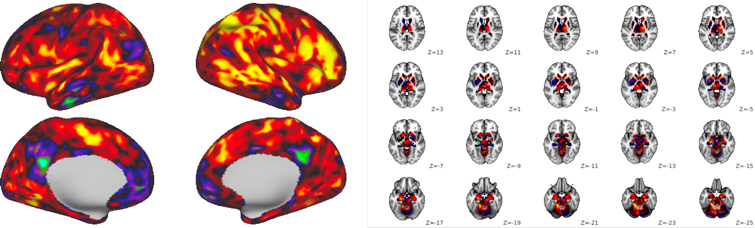
0.5

0

-0.5

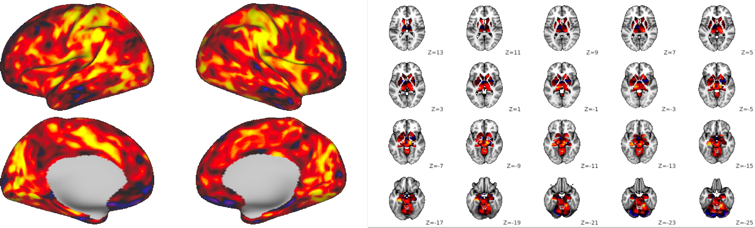
-1

L AI R AI R IFG R Thal L Put R MFG R IPL L MOG R MOG R PreC vmPFC PCC sgACC

CIFTI Analysis **ABCD**

850ms

2.4mm

Mux=6

## In-plane

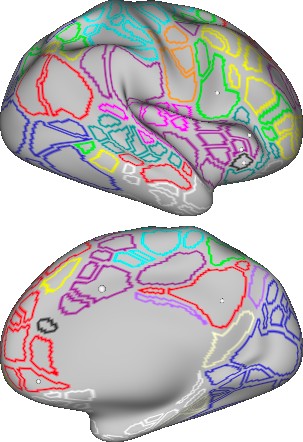
900ms 2.4mm Mux=4 Inplane=2

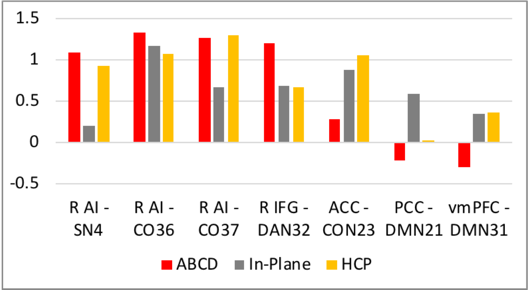
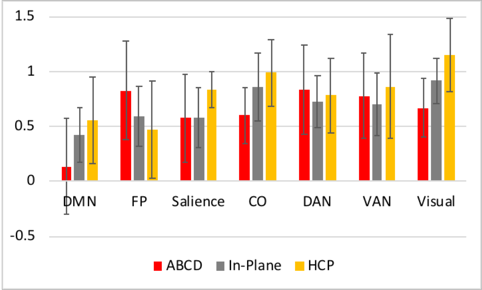
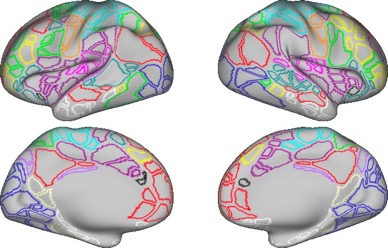
## HCP

900ms 2.0mm Mux=6

Color bar = -1.5 to 1.5

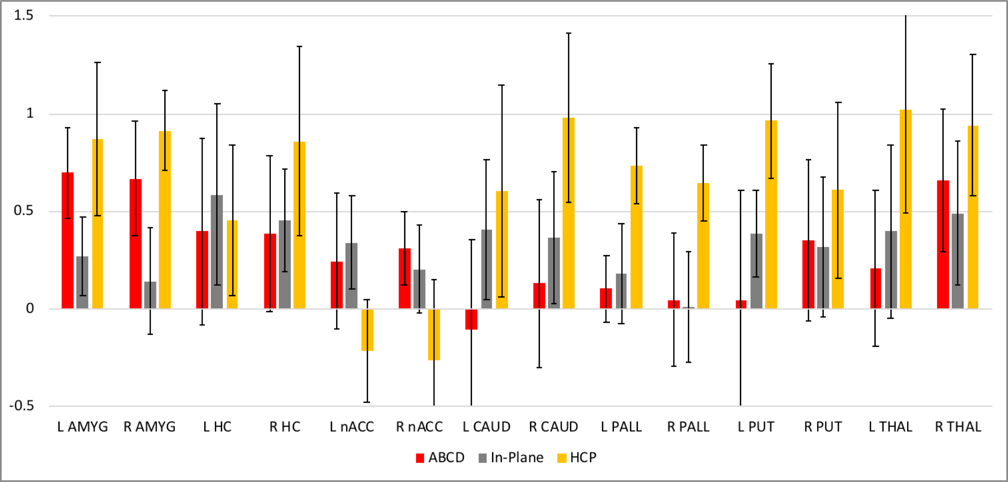
# CIFTI - Gordon Atlas Parcellation

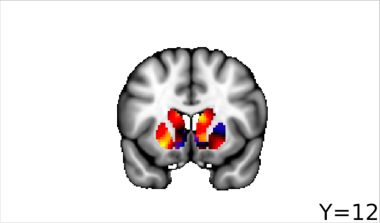


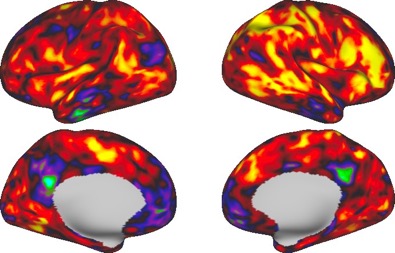
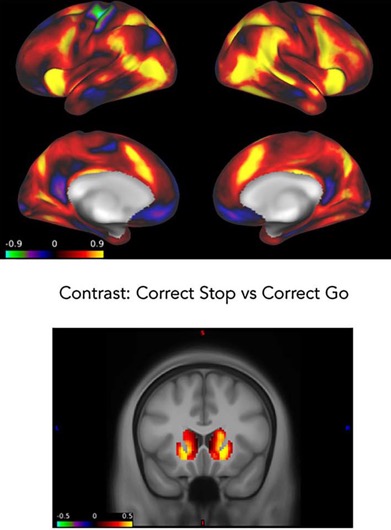
Network Averages +/- SD across ROIs

Selected ROIs

# Subcortical CIFTI Space ROIs



ABCD Comparison

ABCD Paper – Cohen’s d map (n=750) Post-Upgrade Data: n=6