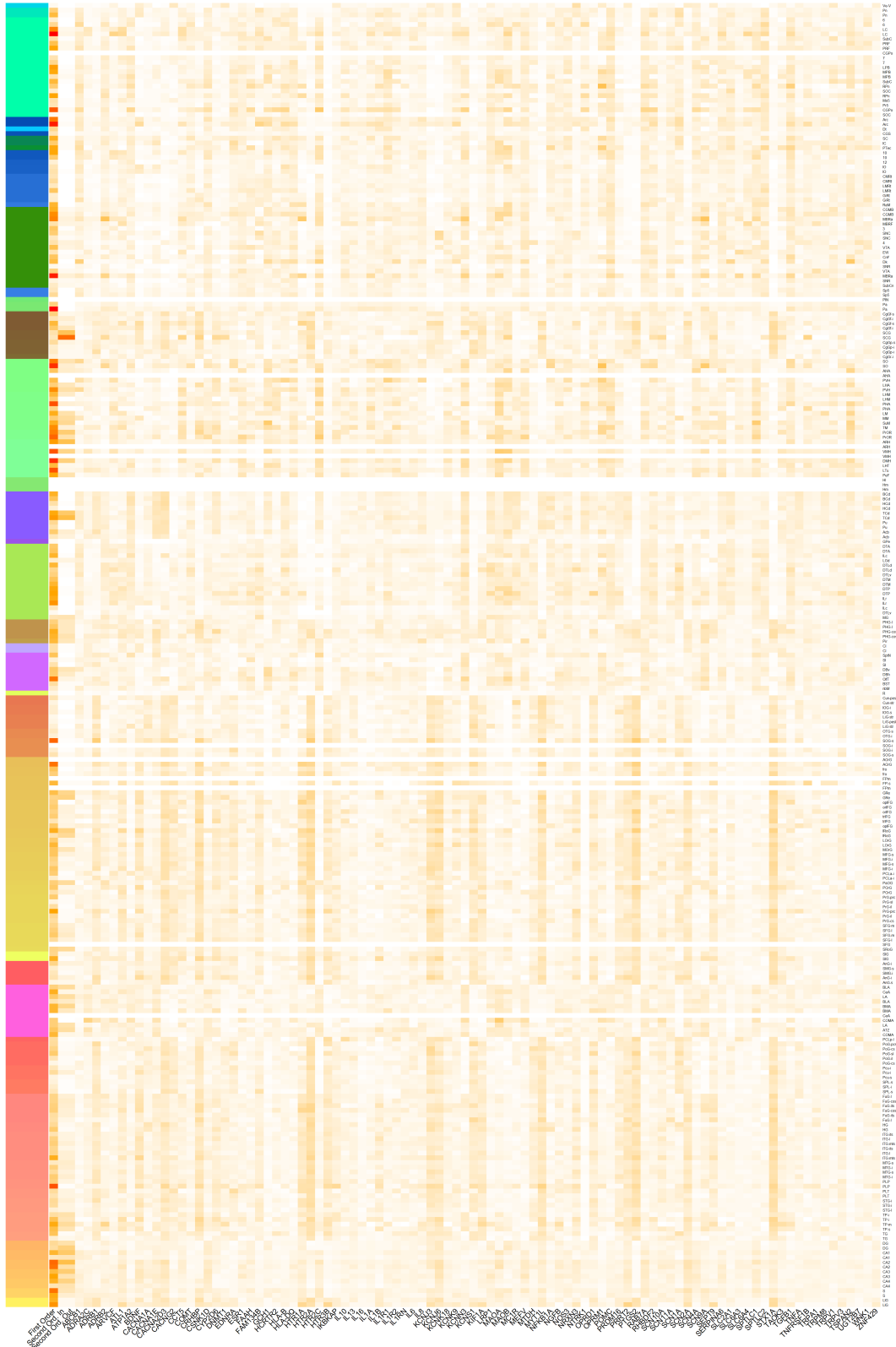


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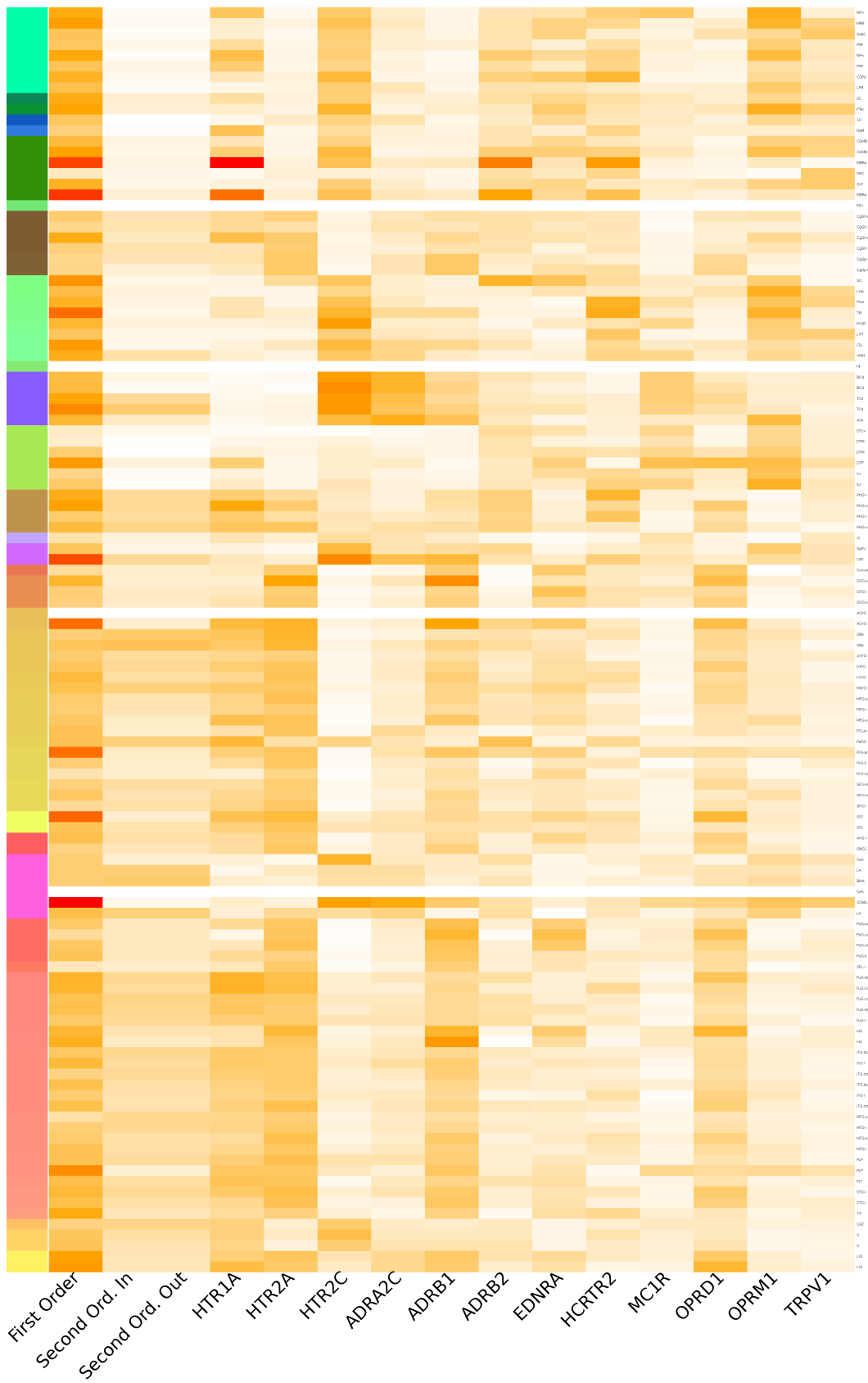
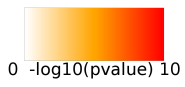
Supplementary Data 4 Case 1. SNPs suggested to affect human pain sensitivity gene-set of pain-QTLs. Heatmap of average log-scaled p-values of first and second order effects as well as single gene effects.

0 -log₁₀(pvalue) 10



A

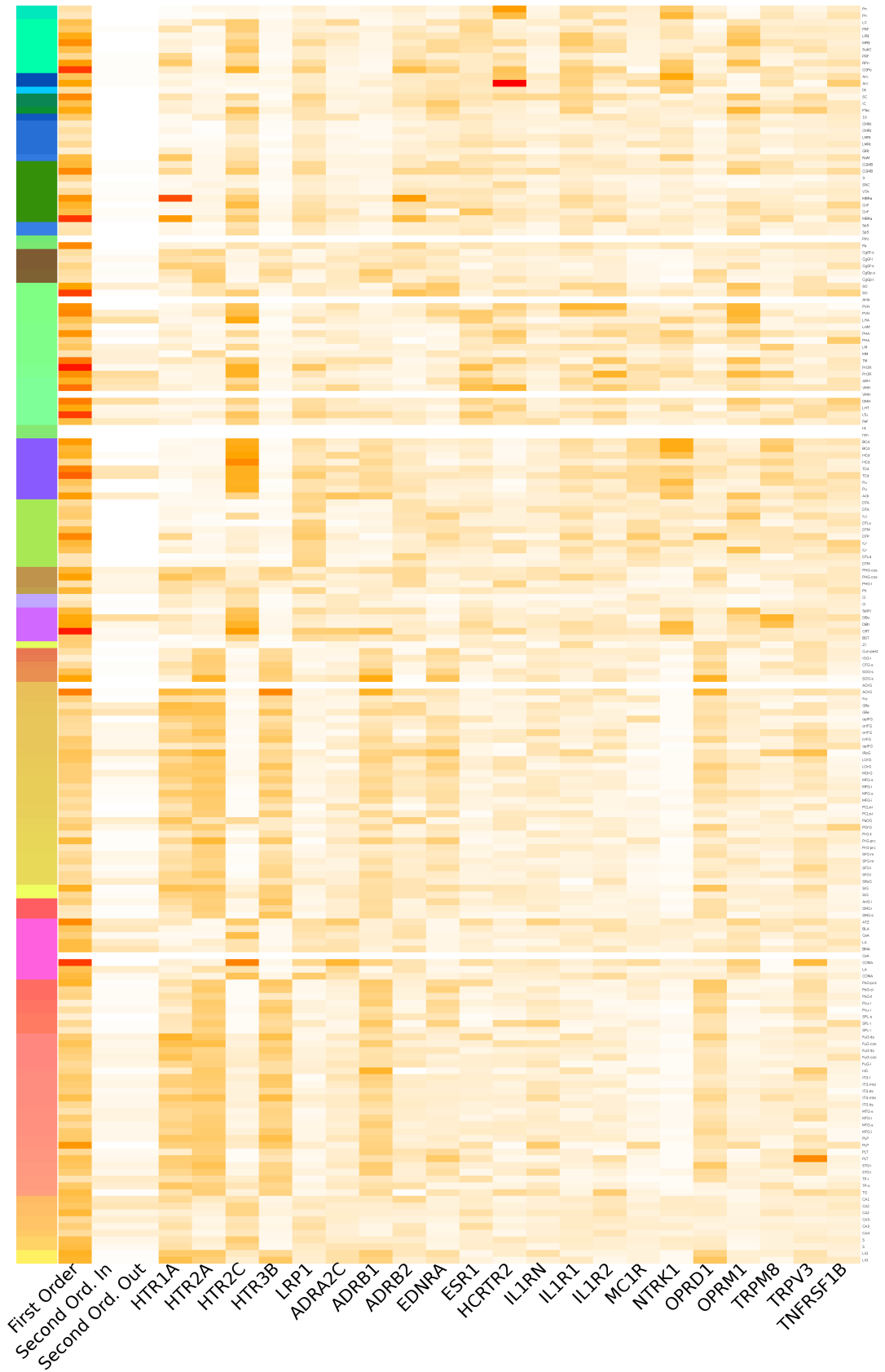
Supplementary Data 4 Case 2. Pain related genes in human gene-set of pain-QTLs. Heatmap of average log-scaled p-values of first and second order effects as well as single gene effects.



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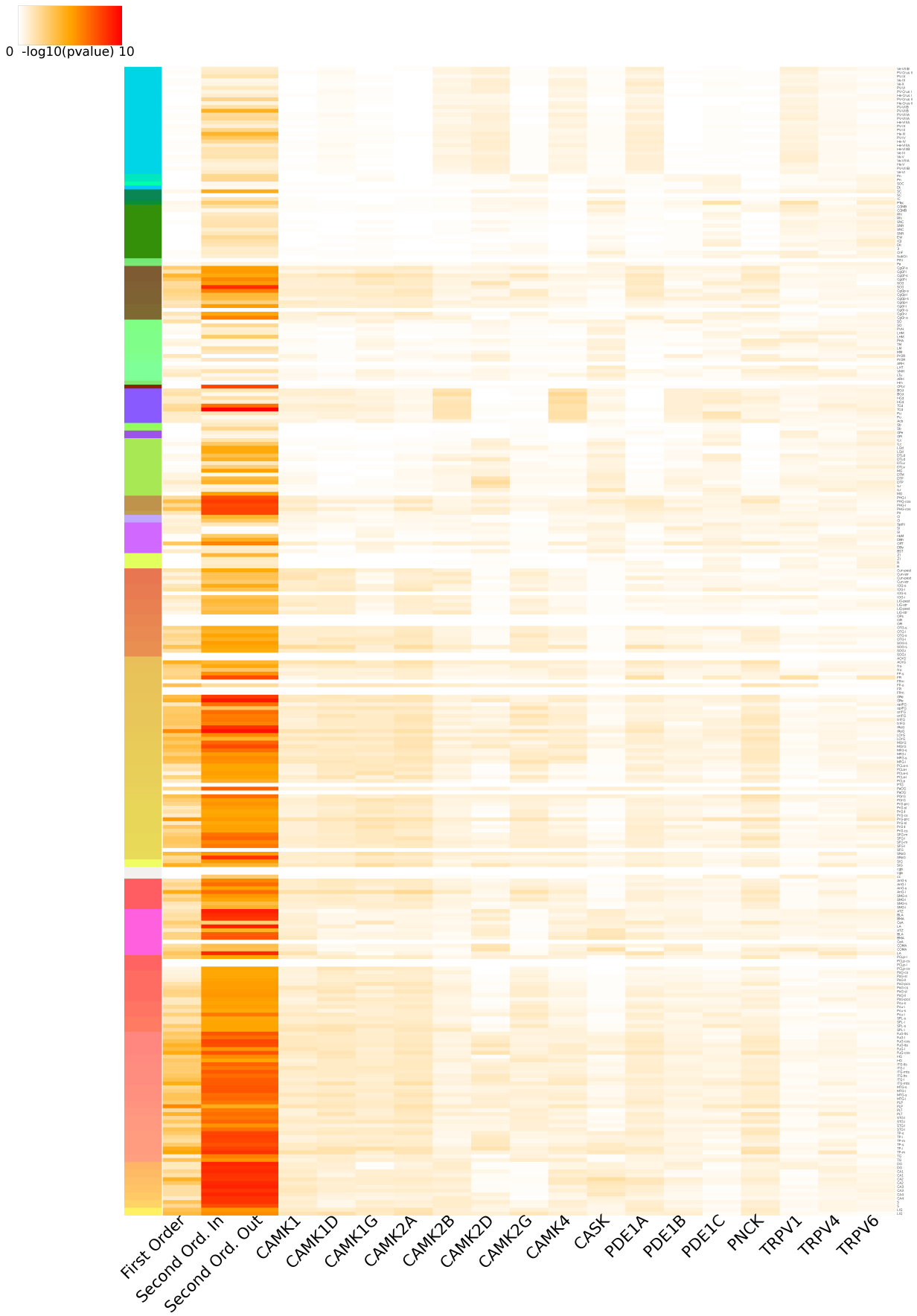
Supplementary Data 4 Case 3. Pain related genes in human Neuroactive ligand-receptor interaction gene-set of pain-QTLs. Heatmap of average log-scaled p-values of first and second order effects as well as single gene effects.

0 -log₁₀(pvalue) 10



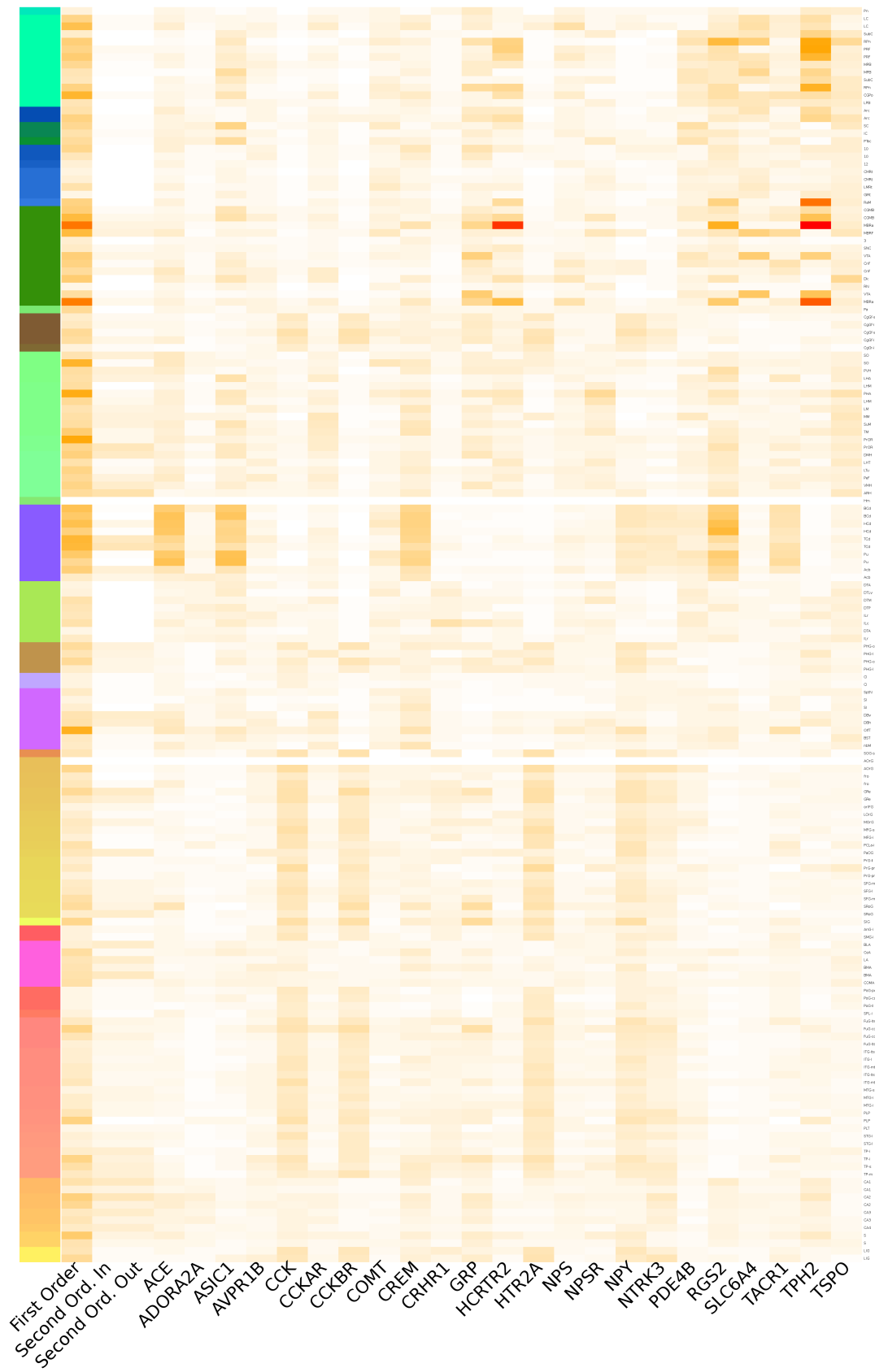
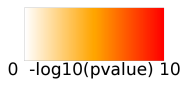
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Supplementary Data 4 Case 4. Pain related genes in human receptor gene-set of pain-QTLs. Heatmap of average log-scaled p-values of first and second order effects as well as single gene effects.



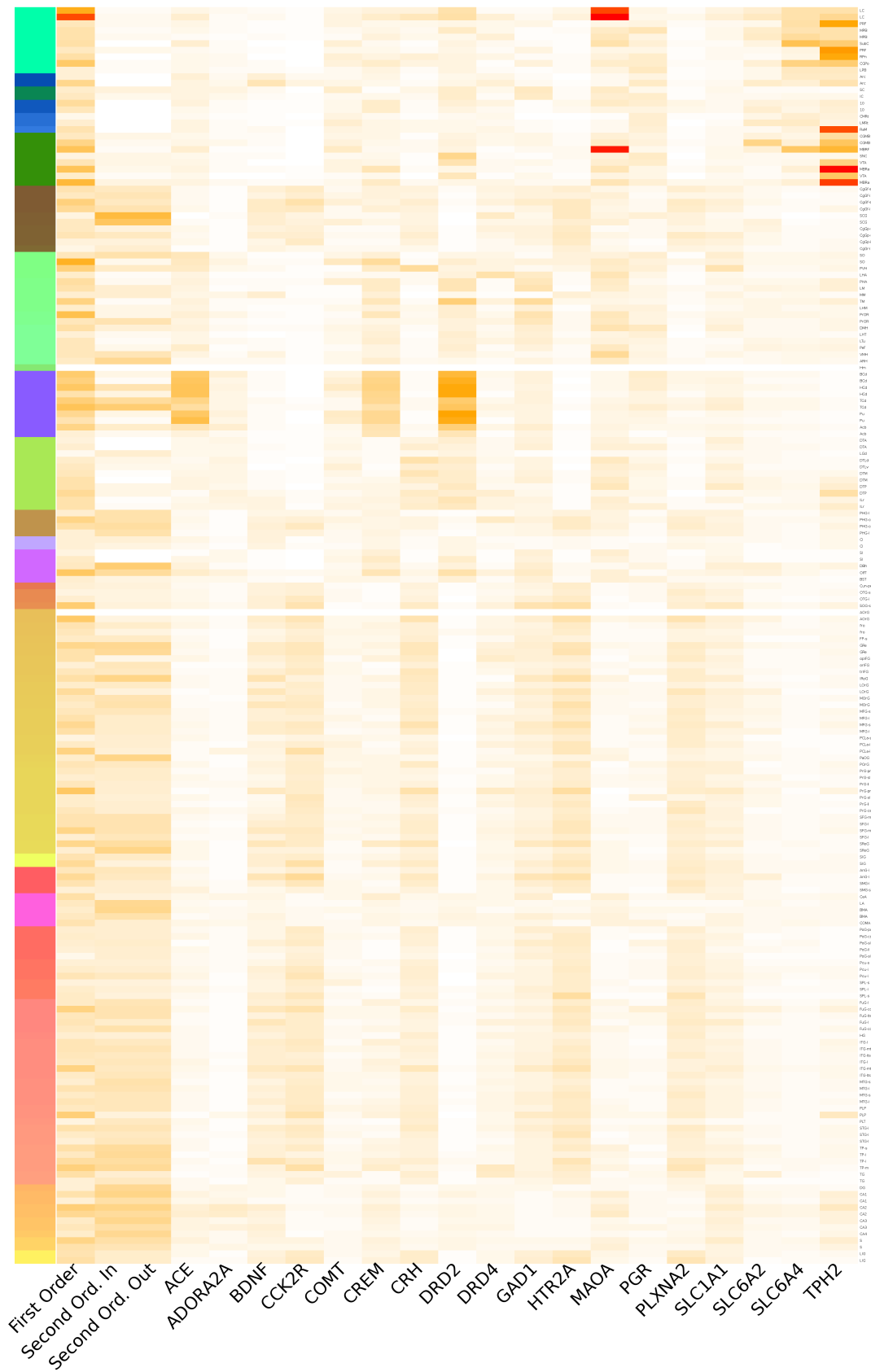
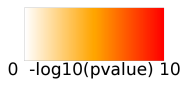
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Supplementary Data 4 Case 5. Calmodulin binding gene-set of pain-QTLs. Heatmap of average log-scaled p-values of first and second order effects as well as single gene effects.



A

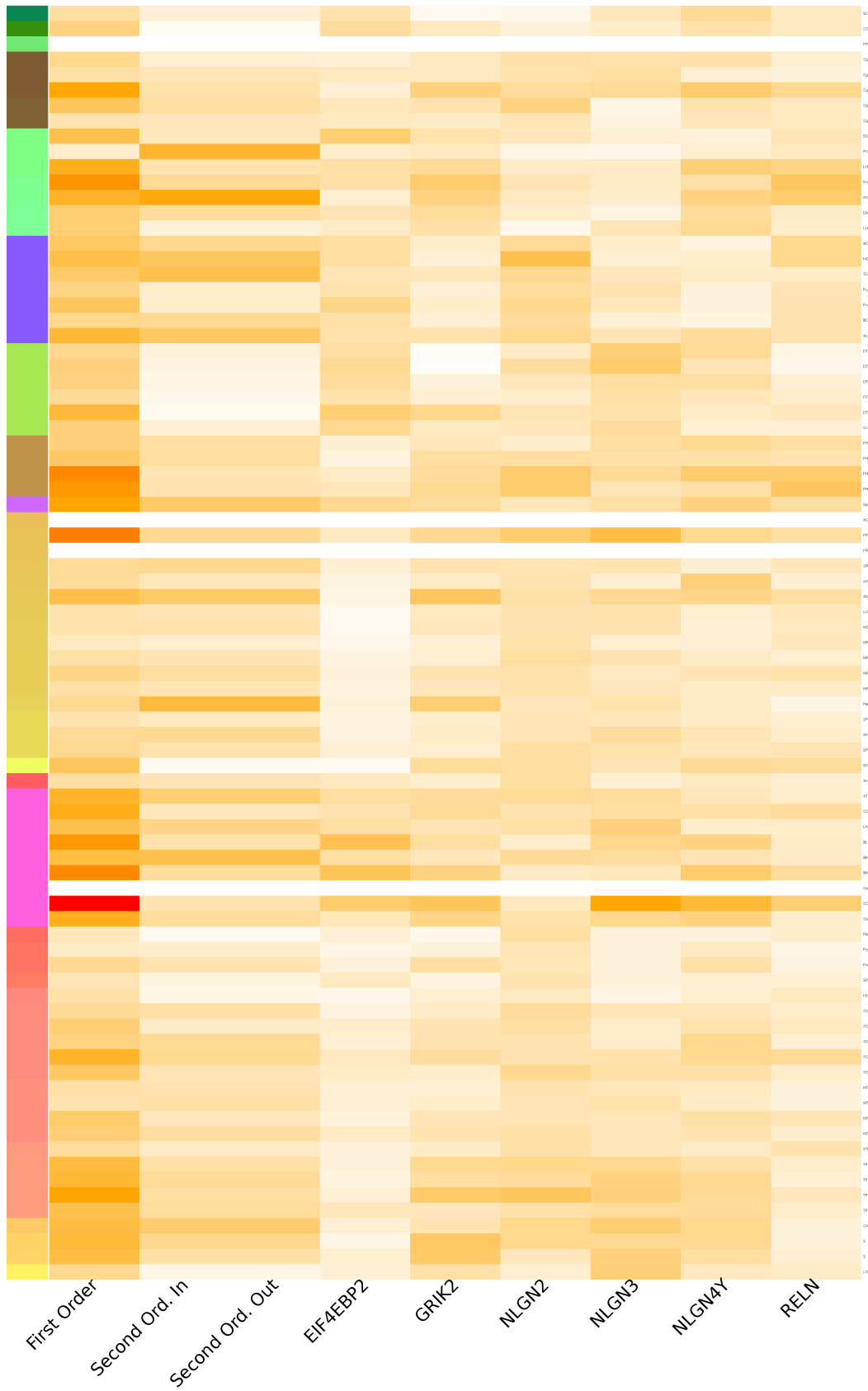
Supplementary Data 4 Case 7. Panic disorder gene-set of fear-QTLs. Heatmap of average log-scaled p-values of first and second order effects as well as single gene effects.



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Supplementary Data 4 Case 8. Anxiety human personality traits gene-set of fear-QTLs. Heatmap of average log-scaled p-values of first and second order effects as well as single gene effects.

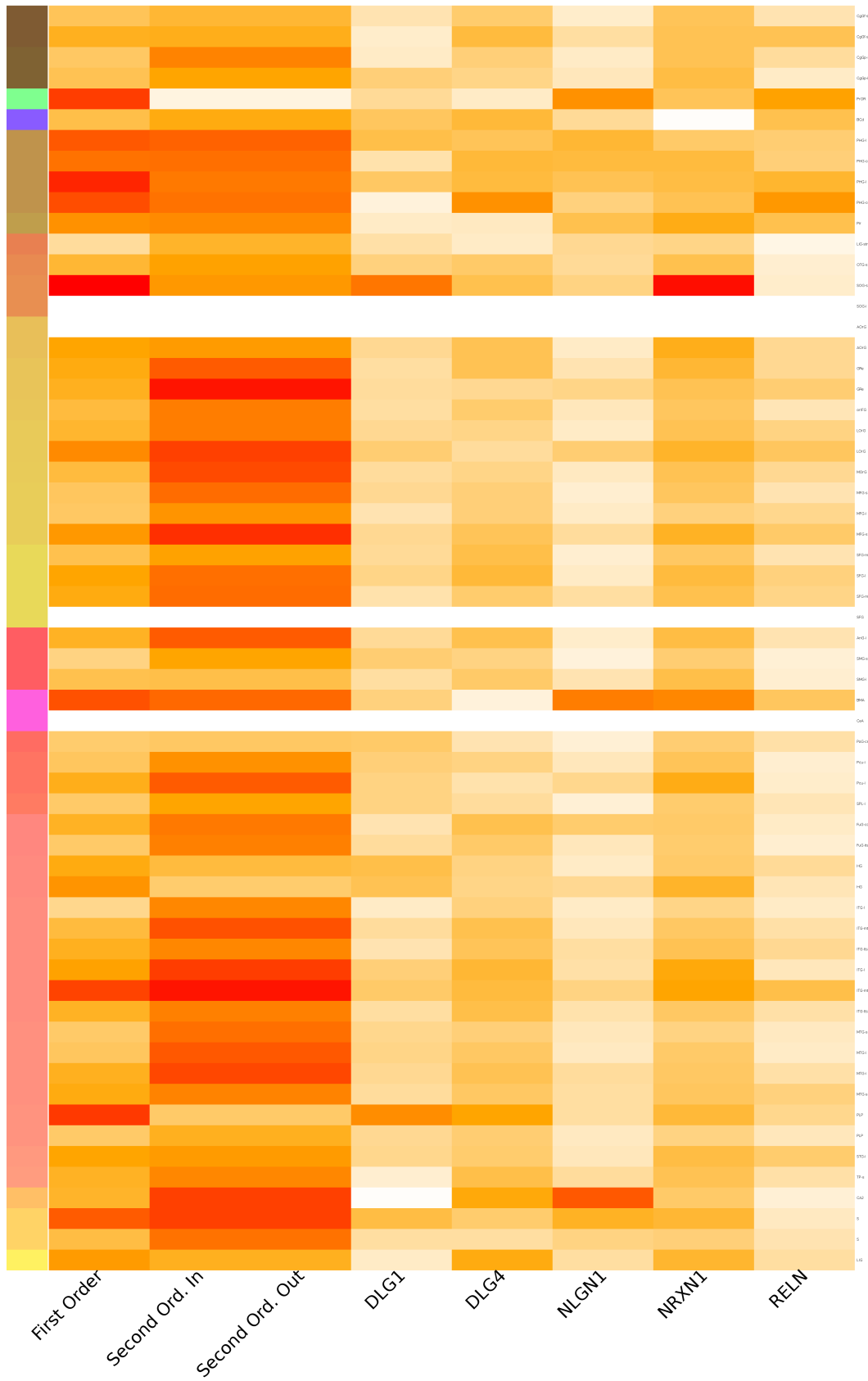
0 -log₁₀(pvalue) 10



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Supplementary Data 4 Case 9. Autdb Human Modulation of synaptic transmission BP gene-set of autism-QTLs. Heatmap of average log-scaled p-values of first and second order effects as well as single gene effects.

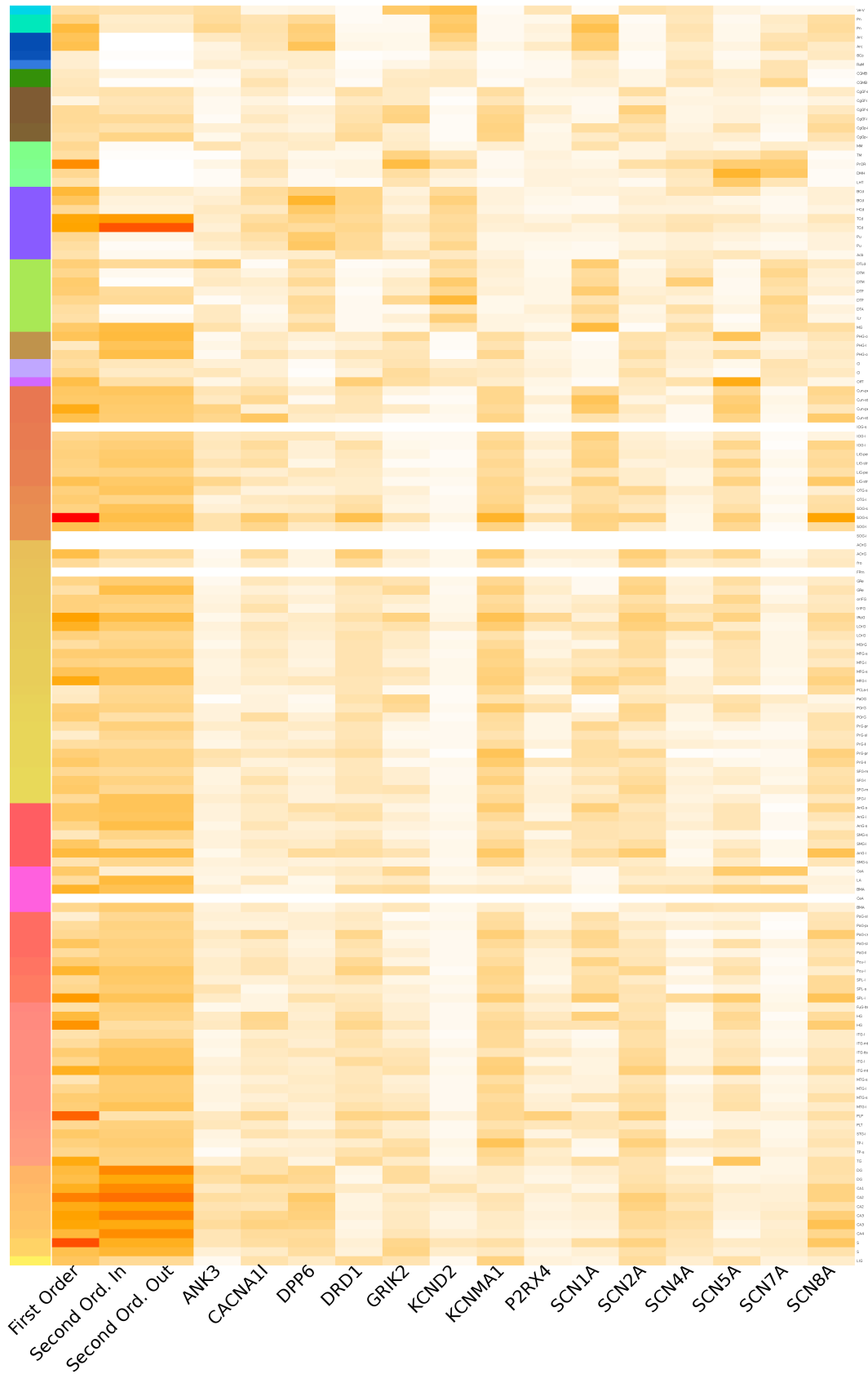
0 -log₁₀(pvalue) 10



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Supplementary Data 4 Case 10. Autdb Human Receptor localization to synapse BP gene-set of autism-QTLs. Heatmap of average log-scaled p-values of first and second order effects as well as single gene effects.

0 -log₁₀(pvalue) 10



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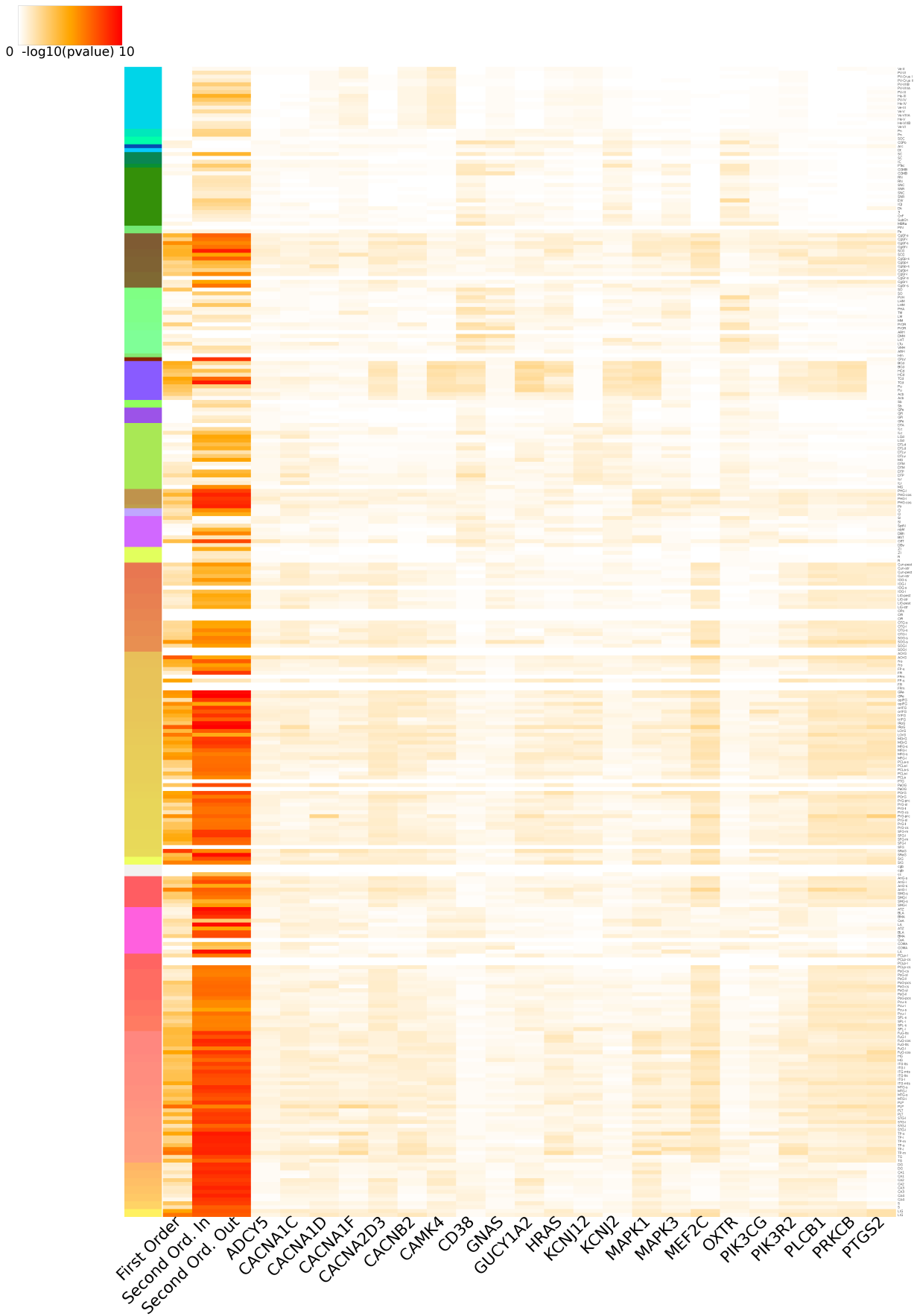
Supplementary Data 4 Case 12. Autdb Human Neuronal action potential BP gene-set of autism-QTLs. Heatmap of average log-scaled p-values of first and second order effects as well as single gene effects.

0 -log₁₀(pvalue) 10



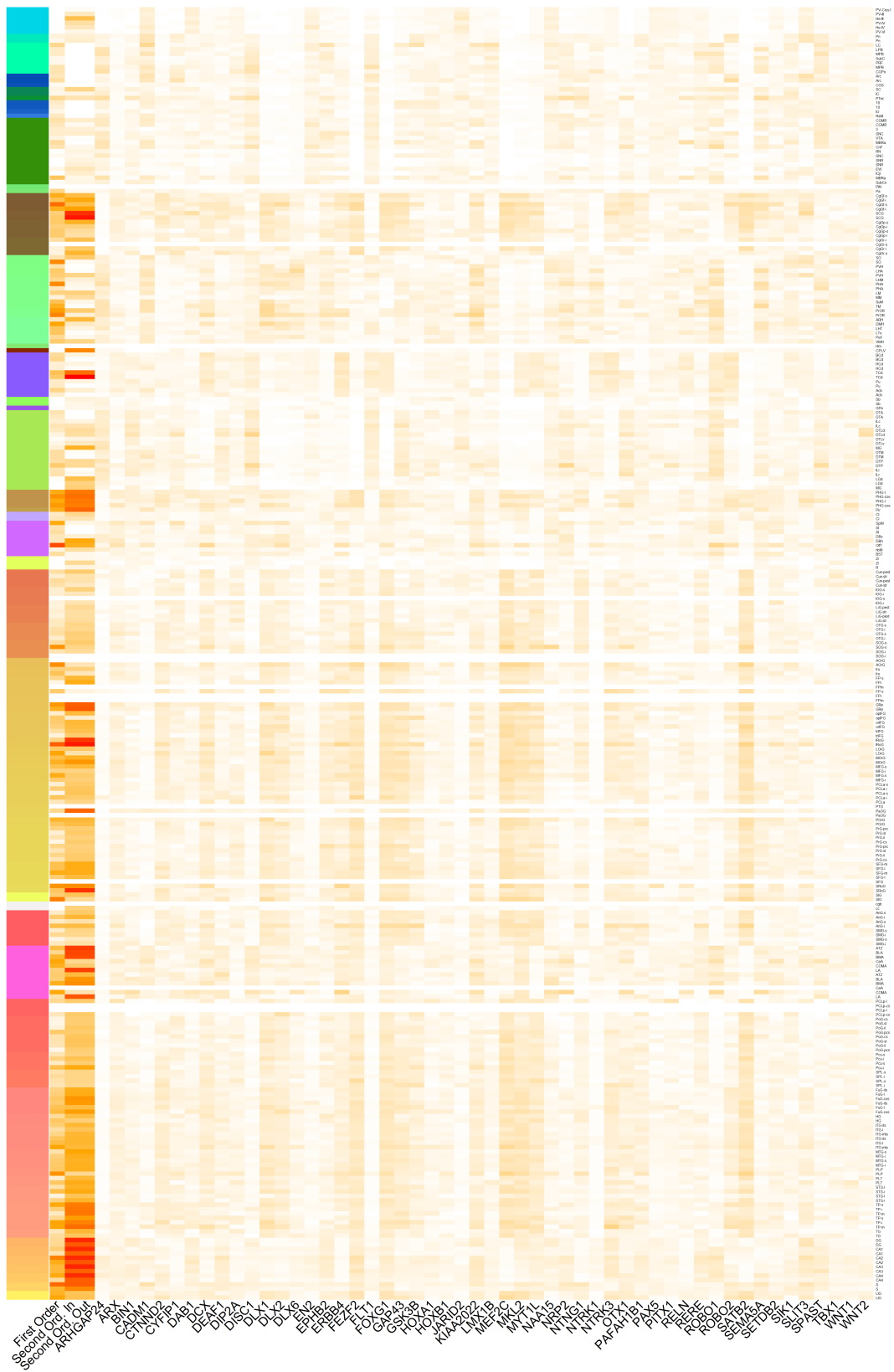
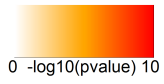
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Supplementary Data 4 Case 13. Autdb Human Neuron cell-cell adhesion BP gene-set of autism-QTLs. Heatmap of average log-scaled p-values of first and second order effects as well as single gene effects.



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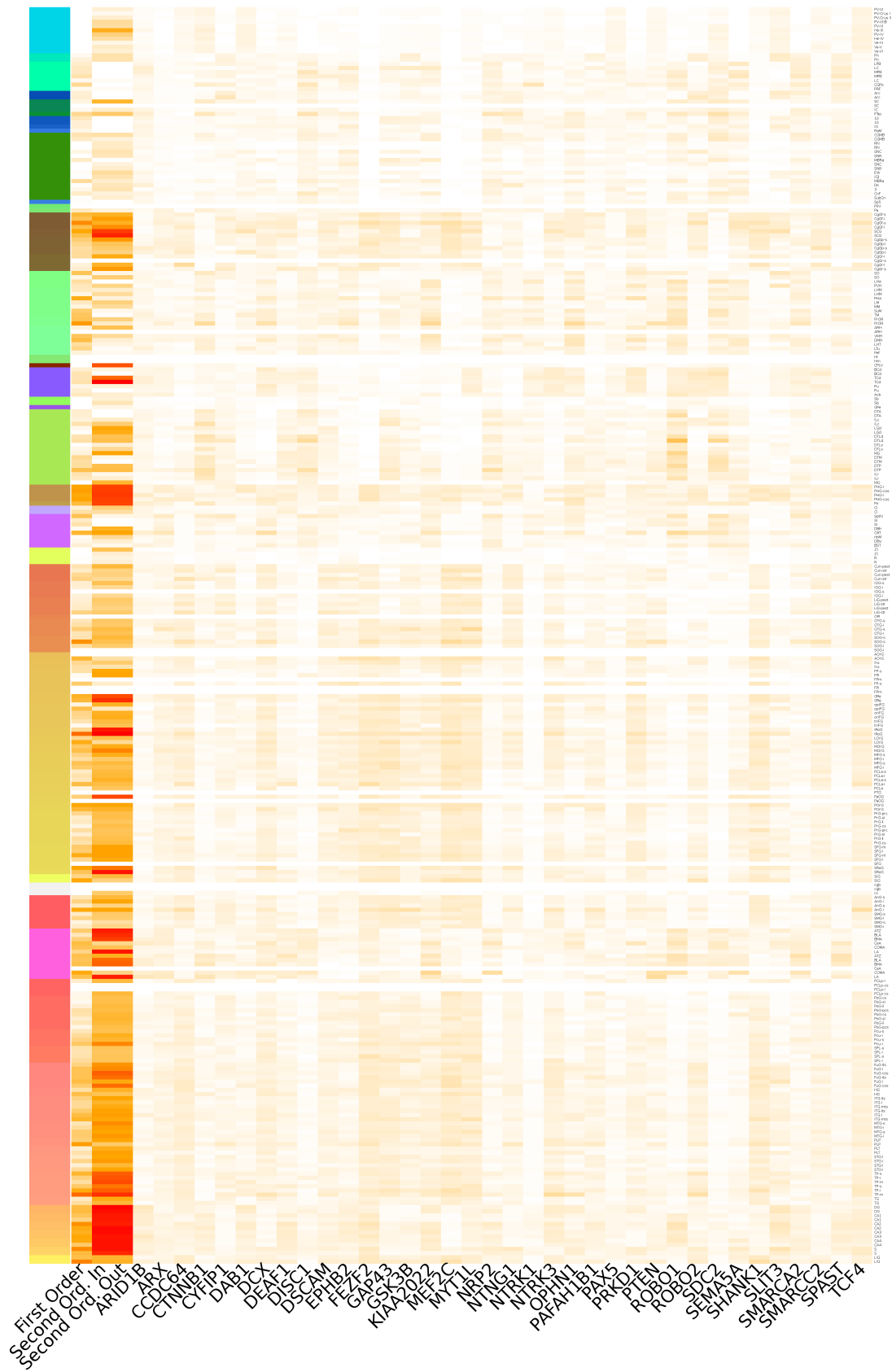
Supplementary Data 4 Case 14. Autdb Human Oxytocin signaling pathway KEGG gene-set of autism-QTLs. Heatmap of average log-scaled p-values of first and second order effects as well as single gene effects.



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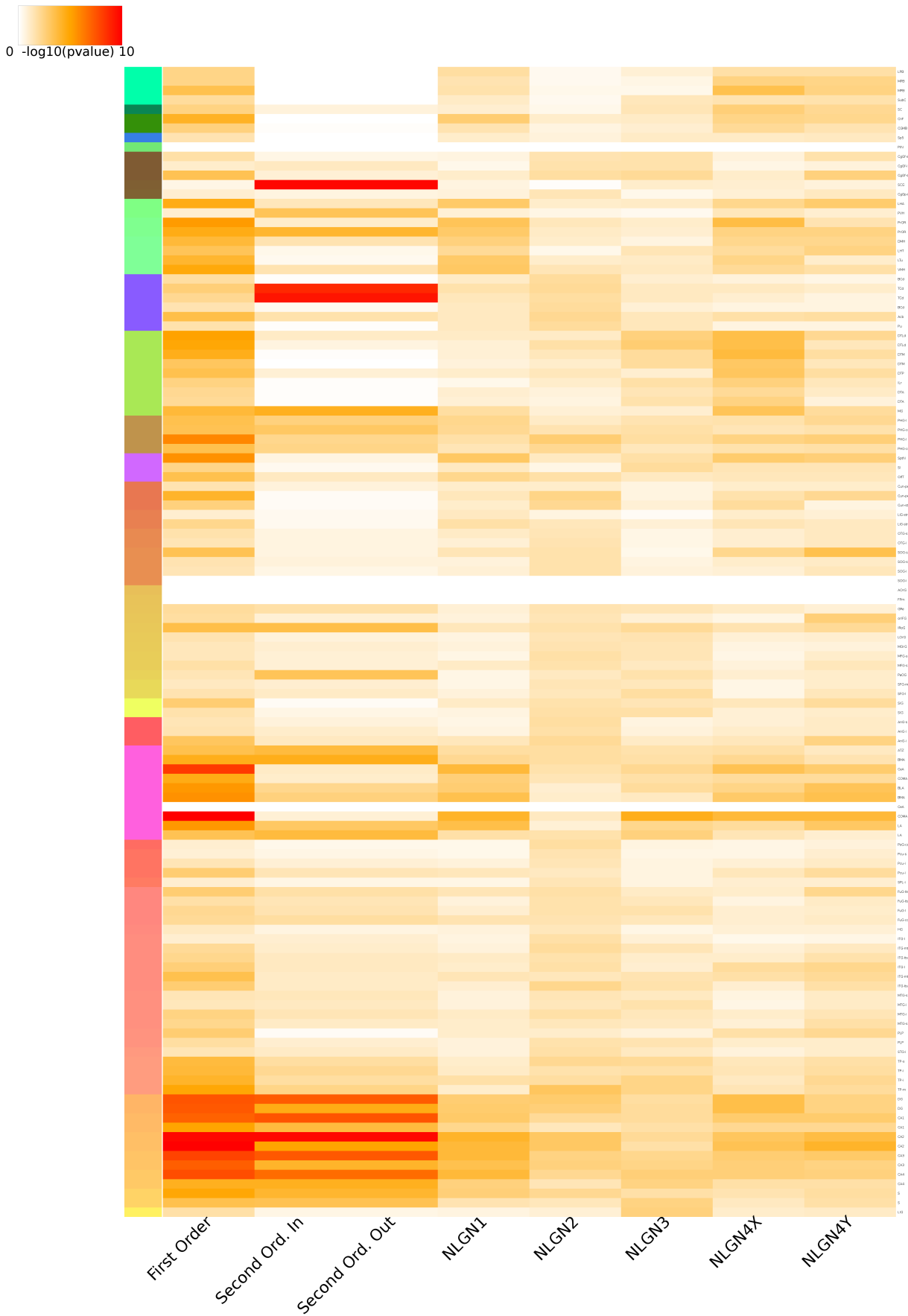
Supplementary Data 4 Case 15. Autdb Human Developmental protein keywords gene-set of autism-QTLs. Heatmap of average log-scaled p-values of first and second order effects as well as single gene effects.

0 -log₁₀(pvalue) 10



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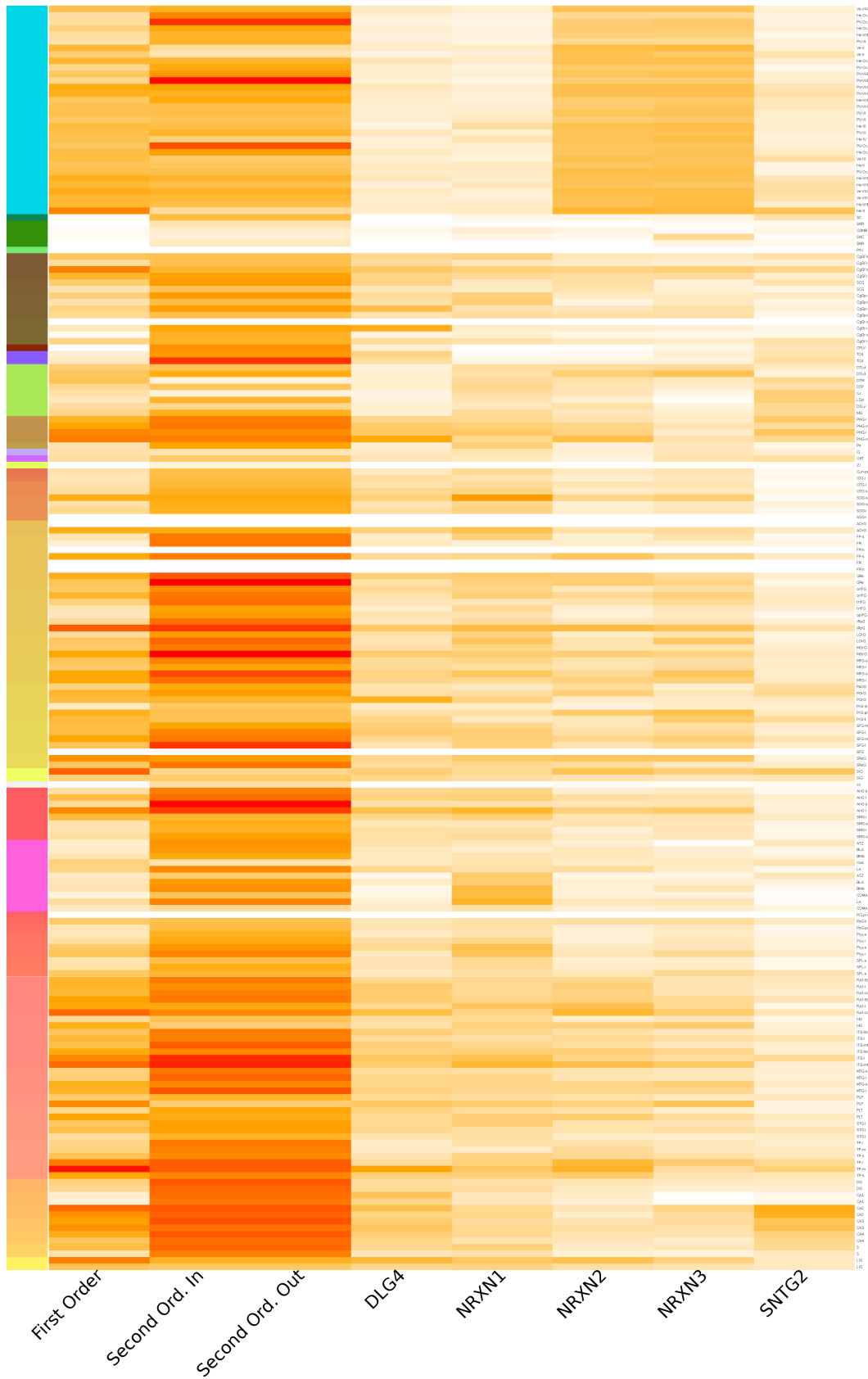
Supplementary Data 4 Case 16. Autdb Human Neurogenesis keywords gene-set of autism-QTLs. Heatmap of average log-scaled p-values of first and second order effects as well as single gene effects.



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Supplementary Data 4 Case 18. Autdb Human Neuroligin INTERPRO gene-set of autism-QTLs. Heatmap of average log-scaled p-values of first and second order effects as well as single gene effects.

0 -log₁₀(pvalue) 10



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Supplementary Data 4 Case 19. Autdb Human Neuroligin family protein binding MF gene-set of autism-QTLs. Heatmap of average log-scaled p-values of first and second order effects as well as single gene effects.