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## Disruption in oligodendrocyte function indicated in schizophrenia

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Myelin sheaths are critical for efficient signal transmission along axons. Their inactivation could explain some of the neuropathological deficits associated with schizophrenia.

In the April 10 [Proceedings of the National Academy of Sciences](#), Yaron Hakak and colleagues of the [Genomics Institute of the Novartis Research Foundation](#), San Diego, California used DNA microarray analysis to compare the gene-activation profiles in the postmortem dorsolateral prefrontal cortex of 12 schizophrenic and 12 nonschizophrenic individuals.

The team found that of 89 genes that were differentially activated in the schizophrenic group, only those involved in myelination were downregulated or activated at lower levels than normal. They emphasize that this suggests that oligodendrocytes could be a specific cell-type that is functionally impaired in schizophrenia.

Hakak's group stress that their findings support the observation that myelination of the prefrontal cortex occurs in late adolescence and early adulthood, the typical age of onset for schizophrenia. In addition, they point out the benefits of using microarray analysis in exploring the molecular basis of neuropsychiatric disorders and providing new insights into the cause of these diseases.

## References

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2. Genomics Institute of the Novartis Research Foundation, [<http://www.gnf.org/>]