

## THE DISTILLERY

## This week in techniques

| Approach                                                                                         | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Licensing status                                          | Publication and contact<br>information                                                                                                                                                                                       |
|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Disease models                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                           |                                                                                                                                                                                                                              |
| Rat models<br>of dopamine<br>denervation in<br>early and advanced<br>Parkinson's disease<br>(PD) | A rat model of dopamine denervation in PD could aid the development of new treatments for the condition. Rats with chemically induced, partial lesions in the nigrostriatal pathway had milder defects in NMDA-dependent synaptic signaling and milder PD-associated motor deficits than rats with chemically induced, full lesions. In the early PD rat model, a dopamine D1 receptor agonist or a modified transactivator of transcription (TAT) peptide rescued the motor and synaptic signaling deficits compared with saline control. Next steps include identifying the cellular and molecular alterations that occur during the early phases of dopaminergic pathology in the PD model. | Work<br>unpatented;<br>licensing status<br>not applicable | Paillé, V. <i>et al. J. Neurosci.</i> ;<br>published online Oct. 20, 2010;<br>doi:10.1523/JNEUROSCI.2149-10.2010<br><b>Contact:</b> Paolo Calabresi,<br>University of Perugia, Perugia, Italy<br>e-mail:<br>calabre@unipg.it |

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