EMBARGO:
1500 London time (BST) / 1000 US Eastern time / 2300 Japanese time Tuesday 03 May
0000 Australian Eastern time Wednesday 04 May

Wire services’ stories must always carry the embargo time at the head of each item, and may not be sent out more than 24 hours before that time.

Solely for the purpose of soliciting informed comment on this paper, you may show it to independent specialists - but you must ensure in advance that they understand and accept the embargo conditions.

A PDF of the paper mentioned on this release can be found in the Academic journals section of http://press.nature.com. Press contacts for the journals are listed at the end of this release.

Warning: This document, and the Academic Journal paper to which it refers, may contain information that is price sensitive (as legally defined, for example, in the UK Criminal Justice Act 1993 Part V) with respect to publicly quoted companies. Anyone dealing in securities using information contained in this document or in advanced copies of Nature’s content may be guilty of insider trading under the US Securities Exchange Act of 1934.

PICTURES: While we are happy for images from Molecular Psychiatry to be reproduced for the purposes of contemporaneous news reporting, you must also seek permission from the copyright holder (if named) or author of the research paper in question (if not).

HYPE: We take great care not to hype the papers mentioned on our press releases, but are sometimes accused of doing so. If you ever consider that a story has been hyped, please do not hesitate to contact us at press@nature.com, citing the specific example.

PLEASE CITE MOLECULAR PSYCHIATRY AND THE MOLECULAR PSYCHIATRY WEBSITE AS THE SOURCE OF THE FOLLOWING ITEM. IF PUBLISHING ONLINE, PLEASE CARRY A HYPERLINK TO http://www.nature.com/mp/

The role of neurogenesis in antidepressant response

DOI: 10.1038/MP.1022.48a

Promoting the proliferation of new neurons in the brain is essential in improving the response to stress, which is important to treatments of anxiety and depressive disorders, according to a study in mice, published online this week in Molecular Psychiatry.

Alexandre Surget and colleagues introduced mice with inhibited neurogenesis—the creation of new brain cells—in the hippocampus to unpredictable chronic mild stress. The chronic stress exposure
resulted in disrupted stress regulation in the hippocampus. Once an antidepressant drug treatment was applied, new neurons were recruited and hippocampal regulation reestablished.

These findings suggest that therapeutic approaches aimed at increasing hippocampal neurogenesis may treat stress-related disorders such as anxiety and depressive disorders. This knowledge is decisive for the development of more efficient therapeutic strategies. Though the authors caution that hippocampal adult-born neurons may be critical for antidepressant effect specifically when the hippocampus-dependent regulation of the stress system is deficient.

Author contact:
Alexandre Surget (The Kavli Institute for Systems Neuroscience & Centre for the Biology of Memory, Trondheim, Norway)
Tel: +47 7359 8966 ; E-mail: alexandre.surget@ntnu.no

Editorial contact:
Julio Licinio (The Australian National University, Canberra, Australia)
Tel: +61 2 6125 2550; E-mail: julio.licinio@anu.edu.au

Press contacts:
For media inquiries relating to embargo policy for the journal, Molecular Psychiatry:

Neda Afsarmanesh (Nature New York)
Tel: +1 212 726 9231; E-mail: n.afsarmanesh@us.nature.com

Ruth Francis (Nature London)
Tel: +44 20 7843 4562; E-mail: r.francis@nature.com

About Nature Publishing Group (NPG)

Nature Publishing Group (NPG) is a publisher of high impact scientific and medical information in print and online. NPG publishes journals, online databases and services across the life, physical, chemical and applied sciences and clinical medicine.

Focusing on the needs of scientists, Nature (founded in 1869) is the leading weekly, international scientific journal. In addition, for this audience, NPG publishes a range of Nature research journals and Nature Reviews journals, plus a range of prestigious academic journals including society-owned publications. Online, nature.com provides over 5 million visitors per month with access to NPG publications and online databases and services, including Nature News and NatureJobs plus access to Nature Network and Nature Education’s Scitable.com.

Scientific American is at the heart of NPG’s newly-formed consumer media division, meeting the needs of the general public. Founded in 1845, Scientific American is the oldest continuously published magazine in the US and the leading authoritative publication for science in the general media. Together with scientificamerican.com and 15 local language editions around the world it reaches over 3 million consumers and scientists. Other titles include Scientific American Mind and Spektrum der Wissenschaft in Germany.

Throughout all its businesses NPG is dedicated to serving the scientific and medical communities and the wider scientifically interested general public. Part of Macmillan Publishers Limited, NPG is a global company with principal offices in London, New York and Tokyo, and offices in cities worldwide including Boston, Buenos Aires, Delhi, Hong Kong, Madrid, Barcelona, Munich, Heidelberg, Basingstoke, Melbourne, Paris, San Francisco, Seoul and Washington DC. For more information, please go to www.nature.com.