PRESS RELEASE FROM
MUCOSAL IMMUNOLOGY
(http://www.nature.com/mi)

EMBARGO:
1200 London Time (BST) / 0700 US Eastern time Wednesday 24 September
2000 Japanese Time / 2100 Australian Eastern time Wednesday 24 September

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 *Mucosal Immunology* 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 *MUCOSAL IMMUNOLOGY* AND THE *MUCOSAL IMMUNOLOGY* WEBSITE AS THE SOURCE OF THE FOLLOWING ITEM. IF PUBLISHING ONLINE, PLEASE CARRY A HYPERLINK TO www.nature.com/mi

This paper can be found on the Academic Journals page of the press site.

Safeguarding flu vaccination for the future

DOI: 10.1038/mi2008.59

A new approach to improving vaccine supplies in the event of an influenza pandemic is reported online in *Mucosal Immunology* this week. The study compares delivery methods of the current vaccine in an animal model and shows that a lower dose delivered to the site of infection, gives better protection against influenza than the normal dose as it is currently delivered.

One of the most serious challenges facing human health today is preparing for the next influenza pandemic. Influenza is a major global health issue; in the USA alone influenza infections are associated with an average of 36,000 deaths and 114,000 hospitalisations each year.

Mucosal surfaces are linked by an integrated immune system, and protection at mucosal surfaces may be best induced by vaccination at these same sites. Despite this, the vast majorities of approved vaccines are delivered by injection and induce predominantly

systemic immunity, even when targeting mucosal pathogens. Philip Sutton and colleagues used a sheep model to test whether immunization at the site of influenza infection, directly in to the lung could improve protection. They found that compared to the currently available vaccine, significantly lower doses of vaccine delivered directly to the lung resulted in better protection against subsequent influenza infection. This finding may have significant implications in the event of a pandemic when vaccine supplies may not meet demand.

Author contacts:
Dr Philip Sutton (University of Melbourne, Australia)
Tel: +61 3 8344 7152; E-mail: psutton@unimelb.edu.au

Editorial contact:
Alison Wrigley (*Nature Publishing Group,* London)
Tel: +44 207 843 4793; E-mail: a.wrigley@nature.com

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

Katie McGoldrick (*Nature* Washington)
Tel: +1 202 737 2355; E-mail: k.mcgoldrick@naturedc.com

Mika Nakano (*Nature* Tokyo)
Tel: +81 3 3267 8751; E-mail: m.nakano@natureasia.com

About Nature Publishing Group

Nature Publishing Group (NPG) is a division of Macmillan Publishers Ltd, dedicated to serving the academic, professional scientific and medical communities. NPG's flagship title, *Nature*, was first published in 1869. Other publications include *Nature* research journals, *Nature Reviews*, *Nature Clinical Practice* and a range of prestigious academic journals including society-owned publications. NPG also provides news content through *Nature News* and scientific career information through *Naturejobs*.

NPG is a global company with headquarters in London and offices in New York, San Francisco, Washington DC, Boston, Tokyo, Paris, Munich, Hong Kong, Melbourne, Delhi, Mexico City and Basingstoke. For more information, please go to www.nature.com