



The importance of international collaboration and communicating science

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Senior Editor, *Nature*

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CHOOSING A FUTURE

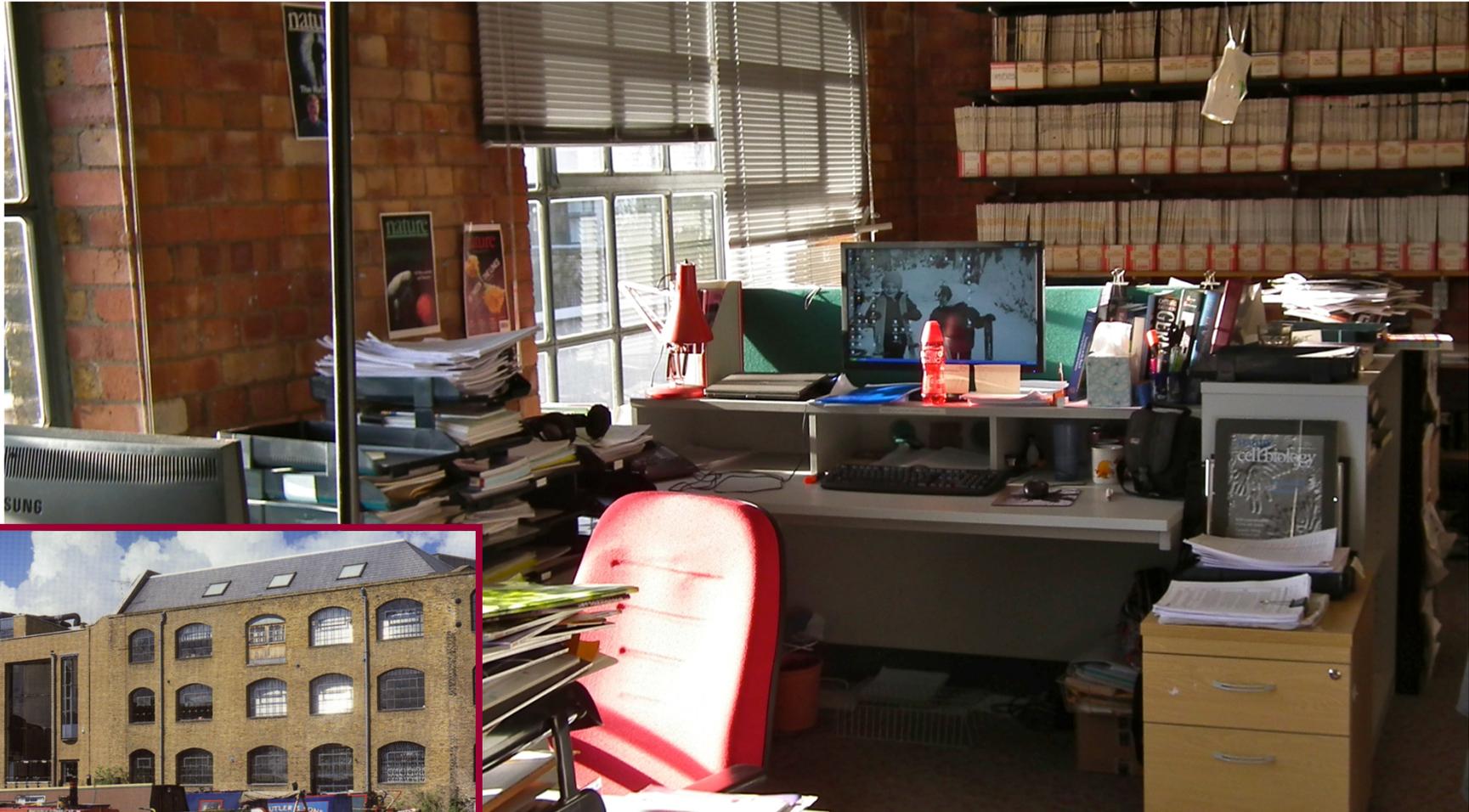
Why science matters



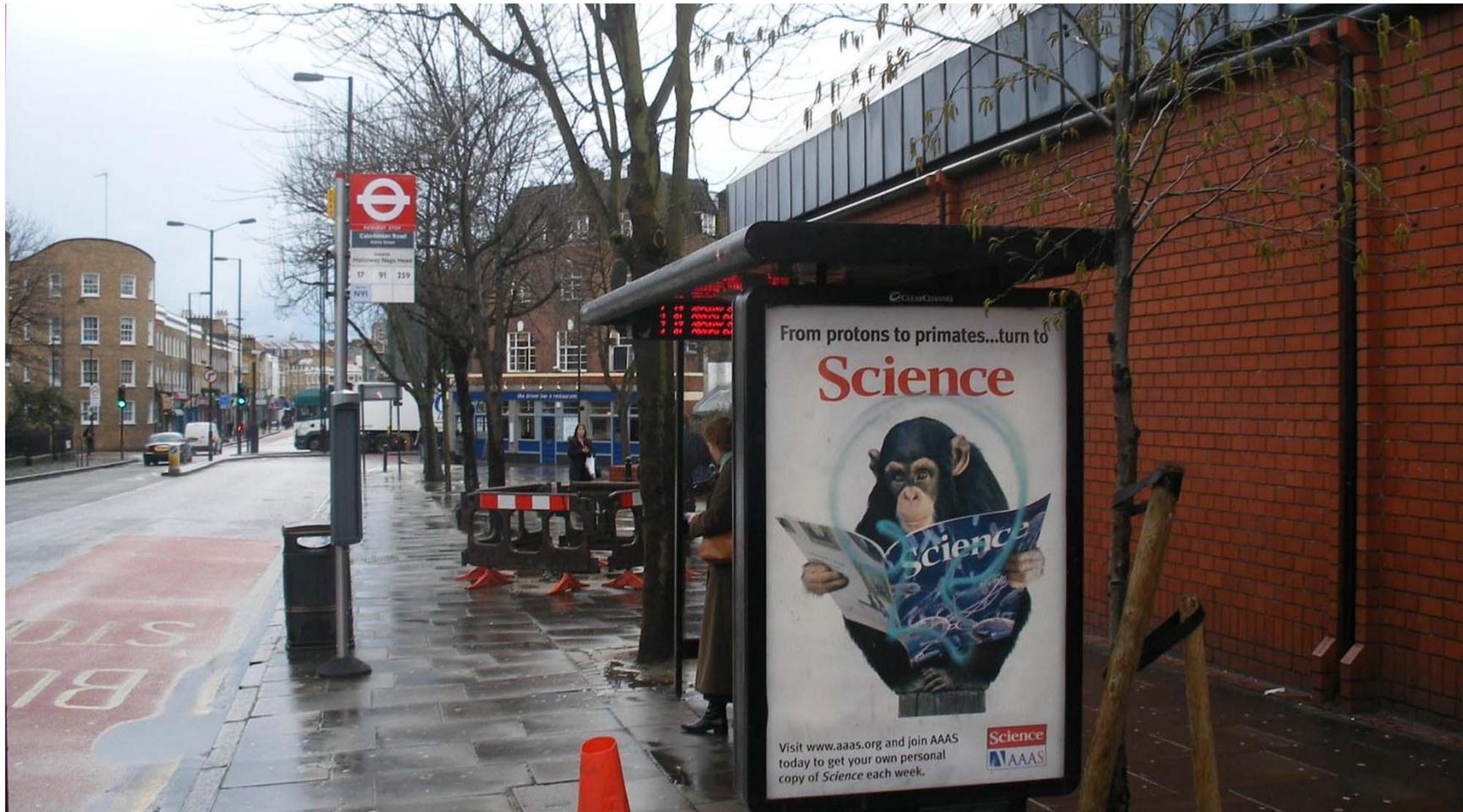
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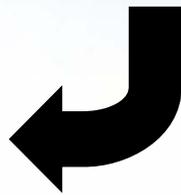
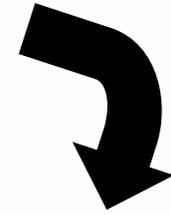
Our London office



The bus stop around the corner



Manuscripts



The biology team (London, New York, Boston, Tokyo)

 **Ritu Dhand** : overseeing editorial content and management of biological sciences

Francesca Cesari (currently **Wayne Peng**) stem cells and development  

 **I-han Chou**: neuros: sensory and motor systems, decision making, psychiatric disease

Tanguy Chouard : neurobiology, systems biology, protein science 

 **Alex Eccleston**: transcription, chromatin, epigenetics, signal transduction, cell cycle

Angela Eggleston: DNA and RNA structure and metabolism 

 **Josh Finkelstein**: biological chemistry, ion channels

Henry Gee: integrative and comparative biology (including palaeontology) 

 **Noah Gray**: neurodev, neural circuits & plasticity, learning & memory, social neuroscience

Patrick Goymer: evolutionary biology, ecology. 

 **Marie-Therese Heemels**: cell death, neurodegeneration, ageing, diabetes & obesity

Claudia Lupp: microbiology, parasitology, mycology and biological oceanography. 

 **Barbara Marte**: cancer

Deepa Nath: cell biology, plant science 

 **Magdalena Skipper**: genetics, genomics, gene therapy, biotechnology, molecular evolution.

Clare Thomas (currently **Maria Trajkovskva**): virology, cardiovascular biology, general translational medicine.  

 **Ursula Weiss**: immunology

International collaborations and publishing

Same principles that help research advance also help getting a paper published.

Importance of collaborations of any kind, in particular international ones.

International collaborations

- Exchange of knowledge, standards, ideas, methods, reagents.
- Diversity of thought, ways of doing things, education, different perspectives,
- Diversity of scientific culture and different strengths, also in education (e.g. maths, technology, chemistry, “big science” such as sequencing)
- Differences in funding structures and preferences
- Some projects only possible with international collaborations: e.g. CERN, multi-center clinical trials, genomics comparisons, number of collaborators

Communicating science & conferences

- English language
- There is no substitute for talking to people in person and hearing about new data first hand.
- Conferences are important: often collaborations start at conferences, exchange of ideas, comparing notes, be informed.
- Travelling is interesting and fun.

Keystone meeting “the role of inflammation during carcinogenesis” Dublin May 2012



Famous hits

- Dart (1925) Discovery of Australopithecus (Australia, UK, South Africa)
- Chadwick (1932) Existence of the neutron
- Watson and Crick (1953) Structure of DNA
- Neher & Sakmann (1976) patch clamp technique
- Nüsslein-Volhard & Wieschaus (1980) Developmental control genes in *Drosophila*
- IHGSC (2001) The human genome sequence

...and infamous misses

- Beta decay (Fermi) - rejected
- Krebs cycle – rejected

June 1937

“The Editor of NATURE presents his compliments to Mr H.A.Krebs and regrets that as he has already sufficient letters to fill the correspondence columns of NATURE for seven or eight weeks, it is undesirable to accept further letters at the present time on account of the delay which must occur in their publication. If Mr Krebs does not mind such delay, the Editor is prepared to keep the letter until the congestion is relieved in the hope of making use of it. He returns it now, however, in case Mr Krebs prefers to submit it for early publication to another periodical”

Talking about Nobel prizes...

Susumo Tonegawa (1987), "for his discovery of the genetic principle for generation of antibody diversity".

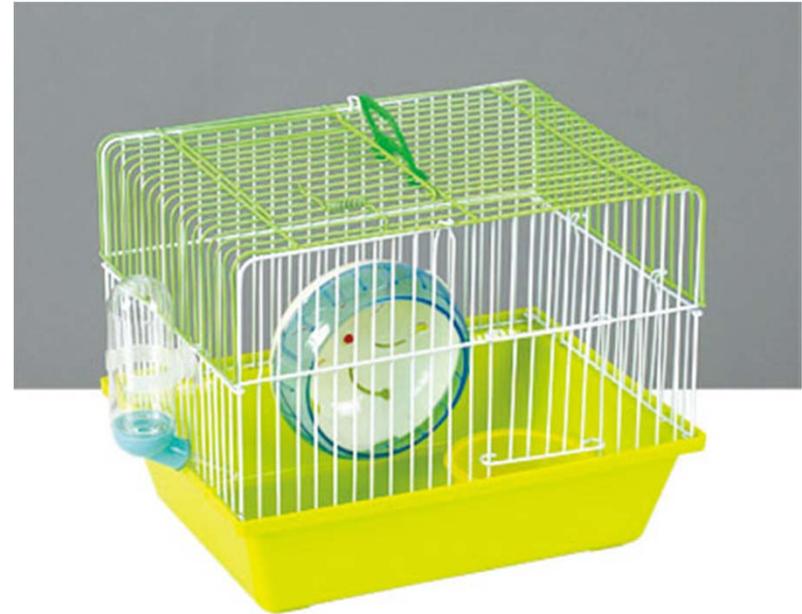
Kyoto University, UCSD, Salk, Basel Institute of Immunology ...

Osamu Shimomura (2008, with Martin Chalfie and Roger Tsien), "for the discovery and development of the green fluorescent protein, GFP"

Nagoya University, Princeton ...

Example

Early 20th century, skin carcinogenesis



Thanks !

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