

Lost in Translation?

Maria Coyle & Christopher McIntyre News and Information Office

The main challenges

• Tight timeframe

• Technical language

Your lack of technical knowledge



Manage expectations

- Stick to the brief and keep the audience in mind (Not all stories interesting to the researcher are interesting to the general reader.)
- Check what the department wants to achieve before you set out.

Promoting research responsibly

- Peer review: work is scrutinised to assess validity.
- Less than half of all studies presented as summaries/ abstracts at professional meetings later published as peer-reviewed journal articles. (Cochrane Library)
- Point out limitations of the study too
- Careful about claims of 'finding a cure'
- An association is a link (which is different to causation)

Preparing for the interview

- Who is the right person for the job?
- Do they know what to expect?
- Do they have time to commit?
- Are there junior researchers with more time who are equally good communicators

Tips for interviewing

- Record interview for speed and accuracy
- What ?Why? Who? How? When? Where? (key questions)
- What is the broader context for this research?
- Don't be afraid to admit you don't understand. Get them to spell out acronyms. Get them to explain 'vague' terms

Plain English Campaign

"Laziness? Trying to make incomprehensible waffle read simply would take too much time.

Academic writers lean on the same old jargon rather than write something difficult and genuinely insightful.

Secondly, it's down to academic insularity. There's an expectation among teachers and students that they must use specific, complex terminology. It's true that, depending on the subject, various terms of reference are unavoidable. But the explanation of those terms also tends to rely on jargon, for no good reason. Although it often unfortunately does, academic should never mean 'difficult to understand'. Teaching and learning should always, particularly at the highest level, be about breaking things down into comprehensible parts. The harder things are to understand, the clearer the information needs to be.

Lastly, and most worryingly, it comes down to the academic writer's lack of understanding. Most of the worst examples of academic writing we've received are jargon to mask confusion or dress up simplicity. "

Use the simplest word available

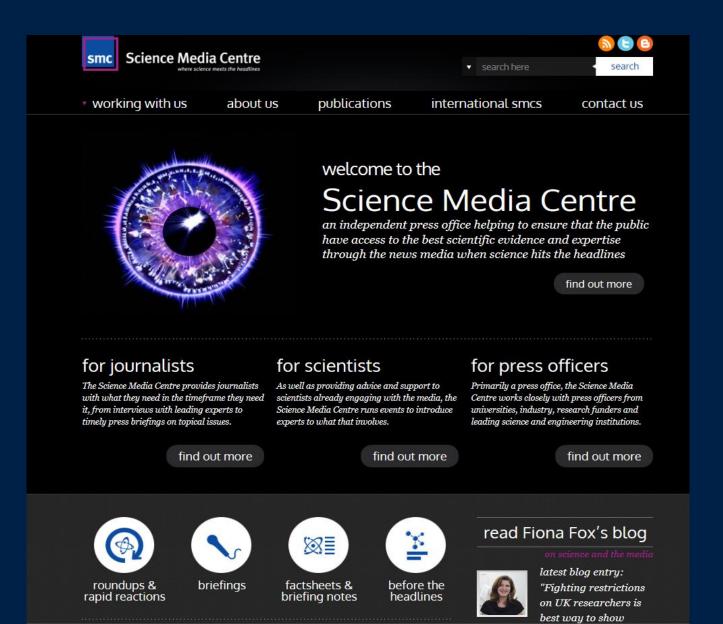
NO	YES
permit	let
purchase	buy
persons	people
exit	way out
demonstrate	show
violate	break
approximately	about
following	after
sufficient	enough
manufacture	make
establish	set up
expenditure	spending
participate	take part
utilise	use

Don't use two words where one will do

NO	YES
meet with	meet
head up	head
free up	free
farming sector/agricultural sector	farming
cut back, cutbacks	cut, cuts
track record	record
large-scale	big
decision-making process	deciding/decision
weather conditions	weather
this time around	this time
any time soon	soon
bought up, sold off	bought, sold
top priority	priority
major announcement	announcement
most especially	especially

lithotripsy	breaking up kidney or gall stones using ultrasound	
mammography	examining the breasts by x-ray	
maxillofacial	to do with the face or jaw; (removing a wisdom tooth)	
metastasis	the spreading of tumour cells round the body	
miscible	able to be mixed with another liquid	
MMR	measles, mumps, rubella: the three-in-one vaccination for children	
motor neurone		
disease	a progressive wasting of the nerves that control your muscles	
myocardial infarction	a heart attack; seizure of heart muscle	
nasal	to do with the nose	
nauseous	feeling like you are going to be sick	
necrotic	used to describe dead cells or tissue	
neoplasm	new and abnormal growth; tumour	
neurology	study of the nervous system	
neurophysiology	study of the changes associated with the activity of the nervous system	
obstetrics	care and control of pregnancy and childbirth	
oedema	swelling caused by fluid	
oncology	study and treatment of tumours	
ophthalmic	to do with the eye; ophthalmology - its treatment	
orthodontics	dentistry specialising in correcting teeth problems	
orthopaedics	treatment of bones and muscles (originally, in children)	
osteopathy	treatment by manipulation and massage of muscles and bones	
osteoporosis	brittle bones; weakening of the bones	
otolaryngology	treatment of diseases of the ear and throat study and treatment of children and their diseases	
paediatrics	,	
palliative care	lessening pain without curing the symptoms	
paraplegia patella	paralysis of the legs the kneecap	
pathology	study of the causes of disease; the testing (biopsy) of tissue to	
	check for disease	
pertussis	whooping cough	
phenylketonuria	inherited difficulty in processing an amino acid; can lead to learning difficulties (mental handicap)	
physiotherapy	use of physical methods to promote healing such as massage,	
podiatry	manipulation and exercise a branch of chiropody	
podiatry post-op	a branch of chiropody after the operation	
post-op post operative	after the operation	
pre-assessment	a hospital appointment before the operation date to check details	
pre-med	drug given before an anaesthetic to calm the nerves before an	
·	operation	
prophylactic	something taken to prevent disease	
quadriplegia quarantine	paralysis of all four limbs isolation of someone with an infectious or contagious disease	
	(originally for 40 days)	
quinsy	abscess on or near the tonsils	
radiography	taking x-rays; the x-ray department	
radiotherapy	using radiation for treatment (especially of cancer)	
renal	to do with the kidneys	
rhinitis	inflammation in the nose	
sigmoidoscopy sinusitis	examining the inside of the colon (bowel) inflammation of the sinuses ('tubes'), usually around the nose	
sutures	stitches	
syndrome	the set of symptoms associated with a particular disease	
thrombolysis	dissolving a blood clot	
tomogram	the image produced by a computerised tomography (CT) scan, a	
-omogram	very detailed three-dimensional X-ray	
trachea	the windpipe	
trauma	a wound or injury (usually); emotional shock	
triage	sorting out patients according to how urgently they need treatment	
	('A and E')	

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NOVEMBER 23, 2015

gene drive

The term "gene drive" refers to a process by which a genetic trait can spread within a population more quickly than would be expected through natural selection. This Factsheet contains key information about gene drive, including its use and controversy, read more

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JANUARY 6, 2015

ebola: uk preparedness

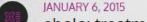
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Don't editorialise

- The Vice-Chancellor of the University of Oxford announced today that the Campaign for the University of Oxford has raised the impressive sum of xxx to date.
- She also announced a generous £x gift to support a range of projects.
- The range and diversity of the gift demonstrates the inclusive and collaborative nature of Oxford's Campaign.
- The Vice-Chancellor of the University of Oxford announced today that the Campaign for the University of Oxford has raised a total of £x million to date.
- She also announced a £x gift to support a range of projects.
- The Vice-Chancellor said: "The range and diversity of the gift demonstrates the inclusive and collaborative nature of Oxford's Campaign."

Strip down language to basics



Tech

Science & Environment

Warnings over abuse of animal tags

Radio signals from tags are helping hunters and harming conservation, warn scientists.

Technology
Technology

Dog taken by shark prompts Sydney warning

Volunteers wanted to save red squirrels

Zimbabwe to 'export more elephants'





Moon shot boosts SpaceX ambitions

Rocket entrepreneur Elon Musk's tourist Moon mission plan makes for interesting comparisons with Nasa

Jonathan Amos

BBC Science Correspondent ③ 28 February 2017 | Science & Environment

SpaceX to fly tourists around Moon



Nest-boxes 'no substitute for trees'

Artificial nests have a markedly different microclimate from tree cavities, a study suggests.

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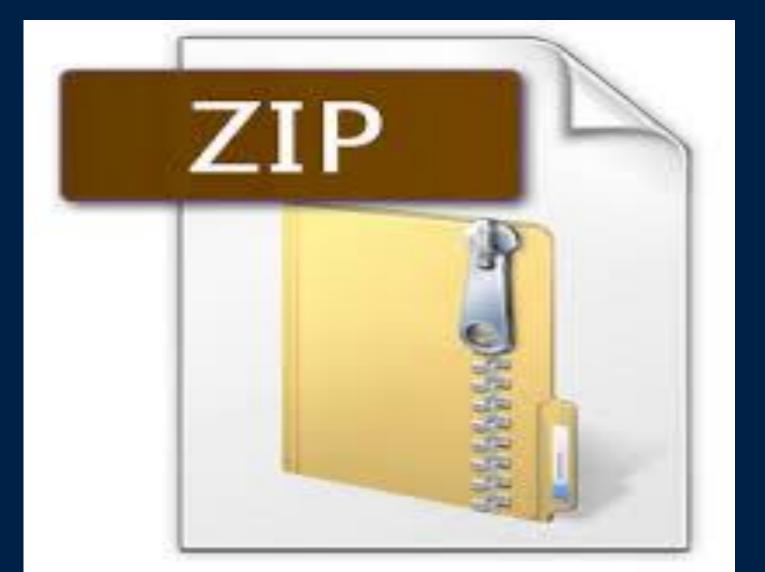
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O 25 February 2017 | Science & Environment

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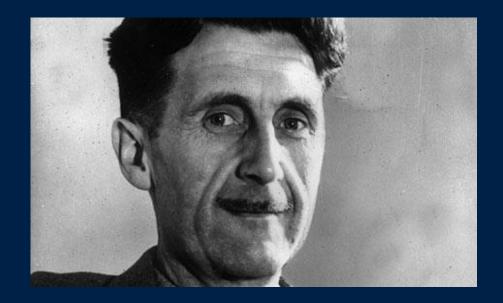
From Science And Environment

UNDO THE ZIPFILE



The Economist

- Do not spend several sentences setting the scene. Hold the reader with a fresh but unpretentious use of language.
- Read through your writing several times and edit it ruthlessly and avoid repetition.
- Do not be too chatty.
- Long paragraphs, like long sentences, can confuse the reader.



• "What am I trying to say?"

• "What image or idiom will make it clearer?"

HIGGS BOSON FOR THE LAYMAN

• "Imagine that the universe is filled with water — which is the Higgs field — and that elementary particles are swimmers. The Higgs bosons are like little bubbles in the water."

(John Gunion, physics professor)

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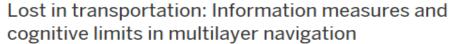
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RESEARCH ARTICLE | NETWORK SCIENCE









Riccardo Gallotti¹, Mason A. Porter^{2,3} and Marc Barthelemy^{1,4,*}

+ See all authors and affiliations

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Article

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Abstract

Cities and their transportation systems become increasingly complex and multimodal as they grow, and it is natural to wonder whether it is possible to quantitatively characterize our difficulty navigating in them and whether such navigation exceeds our cognitive limits. A transition between different search strategies for navigating in metropolitan maps has been observed for large, complex metropolitan networks. This evidence suggests the existence of a limit associated with cognitive overload and caused by a large amount of information that needs to be processed. In this light, we analyzed the world's 15 largest metropolitan networks and estimated the information limit for determining a trip in a transportation system to be on the order of 8 bits. Similar to the "Dunbar number," which represents a limit to the size of an individual's friendship circle, our cognitive limit suggests that maps should not consist of more than 250 connection points to be easily readable. We also show that including connections with other transportation modes dramatically increases the information needed to navigate in multilayer transportation networks. In large cities such as New York, Paris, and Tokyo, more than 80% of the trips are above the 8-bit limit. Multimodal transportation systems in large cities have thus already exceeded human cognitive limits and, consequently, the traditional view of navigation in cities has to be revised substantially.

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Cities

Transport maps in big cities baffle human brain, says study

It's not surprising people get lost on public transport, say researchers - we can't deal with such a large amount of complex information





Gwyn Topham Transport correspondent

Friday 19 February 2016 19.00 GMT



A visitor holds a New York City map in Brooklyn. The city's subway alone has almost too many connections for the brain to cope with. Photograph: Alamy

Those who get lost on the subway or stuck at the wrong bus stop in a strange city can now take comfort in new research, which argues that urban transport maps are becoming too complex for the human mind.

A journey with two changes in a city network requires processing an amount of information that comes close to the brain's cognitive limits, according to the calculations of a team of mathematicians and physicists from Oxford and Paris.

The researchers found that 250 connecting stops on a map appeared to be the upper limit for easy comprehension. The New York subway's connections alone reach the point where the brain would struggle to simply find the most efficient route.

Once multiple modes of transport are added in the likes of New York City, Tokyo, London and Paris, the visitor can be justifiably baffled.

Mason Porter, professor of nonlinear and complex systems at the University of Oxford, said: "We know that there is empirical evidence for some cognitive limit - how many digits people can memorise from phone numbers, or how many moving objects."

Now, he added: "Cities and their transportation networks have grown to the point where they have reached a level of complexity that is beyond human processing capability to navigate around them."

Activity-Dependent Exocytosis of Lysosomes Regulates the Structural Plasticity of Dendritic Spines

Zahid Padamsey,¹ Lindsay McGuinness,¹ Scott J. Bardo,¹ Marcia Reinhart,¹ Rudi Tong,¹ Anne Hedegaard,¹ Michael L. Hart,¹ and Nigel J. Emptage^{1,2,*}

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SUMMARY

Lysosomes have traditionally been viewed as degradative organelles, although a growing body of evidence suggests that they can function as Ca²⁺ stores. Here we examined the function of these stores in hippocampal pyramidal neurons. We found that backpropagating action potentials (bpAPs) could elicit Ca²⁺ release from lysosomes in the dendrites. This Ca2+ release triggered the fusion of lysosomes with the plasma membrane, resulting in the release of Cathepsin B. Cathepsin B increased the activity of matrix metalloproteinase 9 (MMP-9), an enzyme involved in extracellular matrix (ECM) remodelling and synaptic plasticity. Inhibition of either lysosomal Ca²⁺ signaling or Cathepsin B release prevented the maintenance of dendritic spine growth induced by Hebbian activity. This impairment could be rescued by exogenous application of active MMP-9. Our findtide phosphate (NAADP), which is synthesized, most likely by ADP-ribosyl cyclases, in response to cell-specific physiological stimuli (Galione et al., 2010, 2015). NAADP-dependent Ca²⁺ efflux from lysosomes is thought to occur either via transient receptor potential cation channels of the mucolipin 1 family (TRPML1) or via two-pore channels (TPC1/TPC2) (Guse, 2012), with the weight of evidence currently suggesting that NAADP acts via TPCs, most likely via an NAADP-associated binding protein (Morgan and Galione, 2014; Morgan et al., 2015b).

NAADP-dependent lysosomal Ca²⁺ signaling is likely to play a role in neurons. NAADP binding sites have been found throughout the brain (Patel et al., 2000), and NAADP synthesis and lysosomal Ca²⁺ release in neurons can be triggered by exogenous stimulation with glutamate (Pandey et al., 2009). Moreover, application of NAADP elicits Ca²⁺ release in brain microsomes (Bak et al., 1999), promotes neuronal differentiation in PC12 cells (Brailoiu et al., 2006), augments neurite outgrowth in developing cortical neurons (Brailoiu et al., 2005), drives membrane depolarization in medullary neurons (Brailoiu et al., 2009), and increases Ca²⁺ influx through N-type voltage-gated Ca²⁺ channels (VGCCs) in cultured hippocampal neurons (Hui



Home > New construction role found for cell demolition tool

New construction role found for cell demolition tool

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Chris McIntyre | 16 Dec 2016

A new role has been discovered for a well-known piece of cellular machinery, which could revolutionise the way we understand how tissue is constructed and remodelled within the body.

Lysosomes are small, enzyme-filled sacks found within cells, which break down old cell components and unwanted molecules.

Their potent mixture of destructive enzymes also makes them important in protecting cells against pathogens such as viruses by degrading cell intruders.

However, new research from the University of Oxford has revealed that in addition to breaking down cellular components, lysosomes are also important in building cellular structures.

'We've traditionally viewed lysosomes as the cell 'dustbin', because everything that goes into them gets chewed up by enzymes,' said Professor Nigel Emptage from the University's Department of Pharmacology, who led the research. 'However, our research has revealed that lysosomes actually play a far more elaborate role, being involved in building as well as demolition, and playing a key part in structural remodelling of cells.'

The discovery was made while the team was looking at hippocampal pyramidal neurones - specialist brain cells important in spatial navigation and memory, which degenerate in Alzheimer's disease. The researchers observed that lysosomes were involved in supporting the growth of spines from dendrites, structures that increase the cell's ability to store and process large amounts of information.

He added: 'This discovery fundamentally changes how we view this well-known organelle, as it appears that without them new memory could not be stored in the brain. There has been a growing body of evidence for some time that lysosomes have other functions in addition to their traditional role, but it appears that they are also important in cellular construction.'

The full paper, 'Activity-Dependent Exocytosis of Lysosomes Regulates the Structural Plasticity of Dendritic Spines' can be read in the journal Neuron.

A wealth of data

A useful new way to capture the many aspects of poverty

Jul 29th 2010

WHAT IS poverty and when is a person poor? Most would agree that poverty involves not having enough of certain things, or doing without others that richer people take for granted. But what is "enough", which goods and services really matter, and who should decide these questions—researchers, governments or international agencies—are less tractable issues. Perhaps the poor themselves should have the final word. But this presents its own problems. Tabitha, a 44year-old woman from a slum outside Nairobi, told researchers from Oxford University that going without meals was "normal for us". Diminished expectations are only one of the effects of dire poverty.

In the world of international development, most have rallied around the "dollar-a-day" poverty line (or more precisely, the \$1.25-a-day measure) and its less acute cousin, \$2-a-day poverty. These World Bank measures judge a person to be poor if his income falls short of a given level, adjusted for differences in purchasing power. In

For richer, for poorer Population living in poverty, % of total Multidimensional Income under \$1.25 a day 20 40 60 80 100 Ethiopia Sierra Leone Tanzania Cambodia Nigeria India Pakistan Bolivia Indonesia Peru Vietnam China Brazil Egypt Uzbekistan Source: Oxford Poverty and Human Development Initiative

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Timekeeper

principle poverty rates based on these measures count the fraction of people in a country who lack the resources to buy a notional, basic basket of goods.

Despite the many merits of the \$1-a-day measure—not least its simplicity—some argue that looking only at income risks impoverishing the debate about poverty. Such complaints can be overdone. Income clearly matters: it determines how much people can buy and therefore whether they can afford to do the things, like eat enough, that critics of income-based measures think are more important. But rising incomes do not always translate into better health, say, or better nutrition. So there is clearly scope for measures of poverty that directly capture the many different ways in which, to quote Amartya Sen, "human lives are battered and diminished".

A new set of internationally comparable data put together by researchers at the Oxford Poverty and Human Development Initiative at the University of Oxford tries to take Mr Sen's ideas about "the need for a multidimensional view of poverty and deprivation" seriously*. Aided by the improved

In this section

Judgment daze

Microfight

Thinking outside the box

Definitions and Context

• Define concepts the first time you mention them. This is important because there may not be one agreed definition and explaining it avoids confusion and improves accuracy.

• Provide context to make it relevant or understandable.



Oxford University researchers say they have the first robust findings from a large-scale trial on the effects of giving puberty lessons and free sanitary products to girls in African countries. They have found that both the interventions are equally effective in improving girls'

attendance levels at schools.

Previous studies have already found that menstruation is viewed widely in developing countries as 'embarrassing', 'shameful' and 'dirty'; being unable to stay clean is one of the main reasons why girls stay away from their lessons...

Content

- Catchy title that explains main point
- First sentence that encapsulates story.
- First par: explain and give context
- Name checks for relevant partners
- Facts/figures/human examples/applications
- Add researcher's quotes (remember the conversation?)
- Comment from external organisation?



In a guest post for Science Blog, Professor David Pyle of Oxford's Department of Earth Sciences discusses a new paper looking at ancient volcanic activity in the Ethiopian Rift Valley.

The great Rift Valley that runs through Ethiopia has played a pivotal role in human evolution. It is both the location of the earliest fossils of anatomically modern humans and, later, become an important route for human migrations 'out of Africa'.

Today, it is home to more than ten million people, a major hub for tourists, and the location of important transport links. The main Ethiopian Rift Valley is also one of the largest fields of volcanoes on Earth – although this status may not be obvious from the remnants of the sprawling tumbledown hills that break through the dusty flats of the rift valley floor. Here, Africa has been slowly pulling apart for millions of years. As the continent pulls apart, the crust extends and thins, promoting the rise of magma from the depths of the Earth's mantle. None of these volcanoes is thought to have erupted since the early 19th century, and several are now the focus of development of geothermal energy potential.

In a new paper published in the journal *Nature Communications*, Will Hutchison, an Oxford DPhil student, and a team of collaborators from the UK, Ethiopia and the USA, shed a little more light on the violently explosive past of several of these rift volcanoes. Using a combination of field work (to reconstruct the deep history of the volcanoes) and isotopic age dating techniques, the researchers find that at least four of the volcanoes of the main Ethiopian Rift Valley suffered colossal eruptions between about 320,000 and 170,000 years ago. These were very significant eruptions – perhaps of the scale of the eruption of Krakatoa in Indonesia in 1883. They would have buried the rift floor in volcanic ejecta, disrupting water sources and habitats across wide areas, with the collapsed remnants of the volcanic edifices forming great 'calderas', or craters, in the rift floor.

This pulse in volcanism coincides with the arrival of Homo sapiens in the region around 200,000 years ago and raises the question of to what extent these changes in the landscape and environments occupied by our earliest human ancestors might have influenced human evolution and migration. The recognition that explosive volcanism in the rift occurs in bursts also poses some interesting geological questions, and future inter-disciplinary research is needed to understand the scale of eruptions at other large volcanoes of the rift, their causes, and their wider consequences.

Study offers hope of new treatment for rheumatoid arthritis

Patients who do not respond to current rheumatoid arthritis (RA) treatments may benefit from a new form of treatment that has been shown in a study to be effective against symptoms of the disease.

The RA-BEAM study is the first to demonstrate that the drug baricitinib is more effective in improving the symptoms of rheumatoid arthritis than the current standard treatment of injectable biologic anti-TNF medications. Baricitinib has been specifically developed as a treatment for rheumatoid arthritis.

A common and potentially debilitating disease, rheumatoid arthritis typically affects multiple joints and causes pain, swelling and stiffness that can greatly affect a person's quality of life.

There have been significant treatment advances in recent decades in the form of biologic drugs, which are large molecular weight proteins that block the activity of key molecules involved in causing inflammation.

However, biologic drugs need to be administered by injection or intravenously, which can be difficult and painful for many patients. By contrast, baricitinib is a low molecular weight drug that can be taken as an oral medication once a day.

Professor Peter C. Taylor from the Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences (NDORMS), University of Oxford, lead investigator for the RA-BEAM clinical trial, said: "Current biological injectable treatments ease the symptoms of rheumatoid arthritis and slow disease progression to protect joints from long-term damage, but can be painful to administer and do not work for all patients.

"Developing an oral treatment is a huge step forward to simplifying therapy. Early intervention is particularly important in slowing the progress of the disease and maintaining a normal life-style."

Baricitinib is a drug developed by Eli Lilly and Company and Incyte Corporation that inhibits two enzymes that are known to play a key role in the inflammation of rheumatoid arthritis (Jak1 and Jak 2).

What blogs are

- informal
- short
- timely
- full of links

What they're not

- formal
- long-winded
- timeless
- full of info

Before you start blogging

- Can you spare ½ day a week?
- Have you got enough stories/images?
- Can you find material for regular updates?
- Can you integrate with web system?
- Good luck!

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Charlotte: I just don't know what I am supposed to be.

Bob: You'll figure that out. The more you know who you are, and what you want, the less you let things upset you.

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