EMBO Publications

Access at highly selective scientific Journals

Value Added & Costs
Open Access
Variations & Alternatives
Self archiving
Data access
Source Data & Data Search

Bernd Pulverer

Munich, 9/2011

EMBO Publications

EMBO's mission

"identify and foster scientific excellence"

1,400 elected members
35 staff

EMBO's activities

EMBO-membership

Young Investigator Program

Fellowships

Conferences, courses & workshops

Science policy

Publications

Academic publishers make Mu look like a socialist

Academic publishers charge vast fees to access r for by us. Down with the knowledge monopoly rac

George Monbiot
guardian.co.uk, Monday 29 August 2011 21.08 BST
Article history

organisations surviving the tra

Although the "mass media era as normal by those who have the "old paradigm" have great

Publish-or-perish: Peer review and the corruption of science

Pressure on scientists to publish has led to a situation where any paper, however bad, can now be printed in a journal that claims to be peer-reviewed

David Colquhoun
guardian.co.uk, Monday 5 September 2011 13.59 BST
Article history

Scientific journals are lagging behind newspapers, but they are surely on the same course. Many find unacceptable the domination of a few journals and the huge profits made by some publishers from the scientific value produced by others, and the open access has begun for these and other reasons. Open access articles are increasing rapidly, and just in the past few years we have seen the appearance of many "megajournals" like *PLoS One* and *BMJ Open*, which are aiming to publish rapidly after light peer review that does not a leaves readers to decide. Scient biologists have for some time be

Richard Smith: Scientific communication is returning to its roots

26 Jul, 11 | by BMJ Group

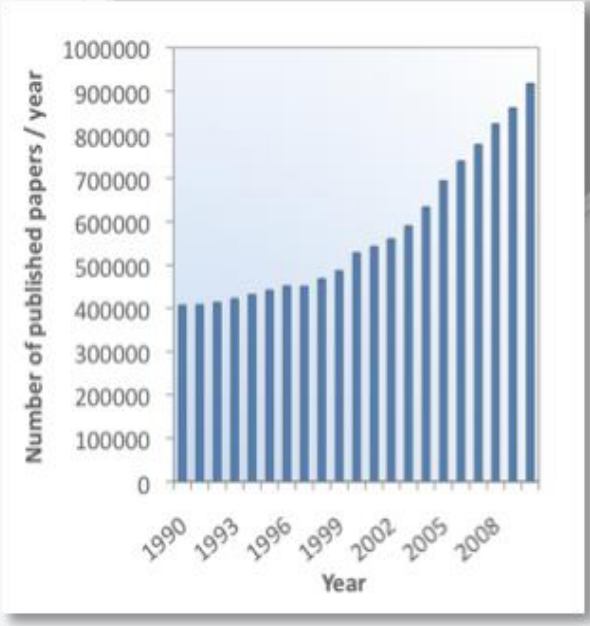
Alternatives/supplements to expensive journals

- Preprint servers (arXiv)
- Low threshold publishing

  …with pared down editorial & production quality
- Post publication peer review
- Wiki*publishing*

The scientific paper…

…remains the primary medium for distributing significant, novel data.



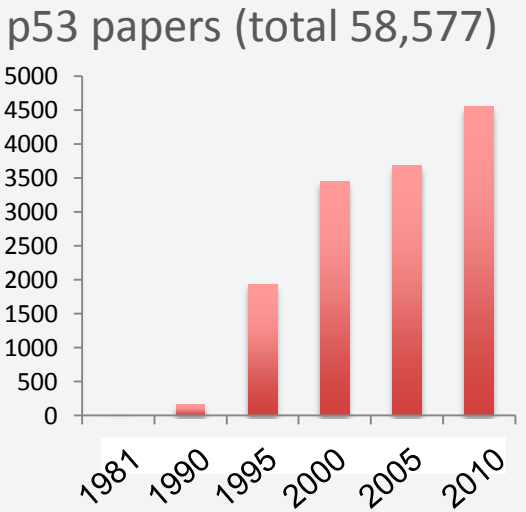
Access to research papers has become easier -

Yet, the pressure to publish in **top journals** has increased.

Why?

- The volume and complexity of research is growing rapidly.
- Research is globalized.

–> 'journal filters' allow **access to key literature** and **research assessment**.



>50,000 academic journals; >10k listed on ISI/Scopus

'3/4 of the literature may be replaced by 'low threshold' publishing'

Selective journals are more important than ever

- Navigating
- Filtering
- Quality assurance
- Research evaluation

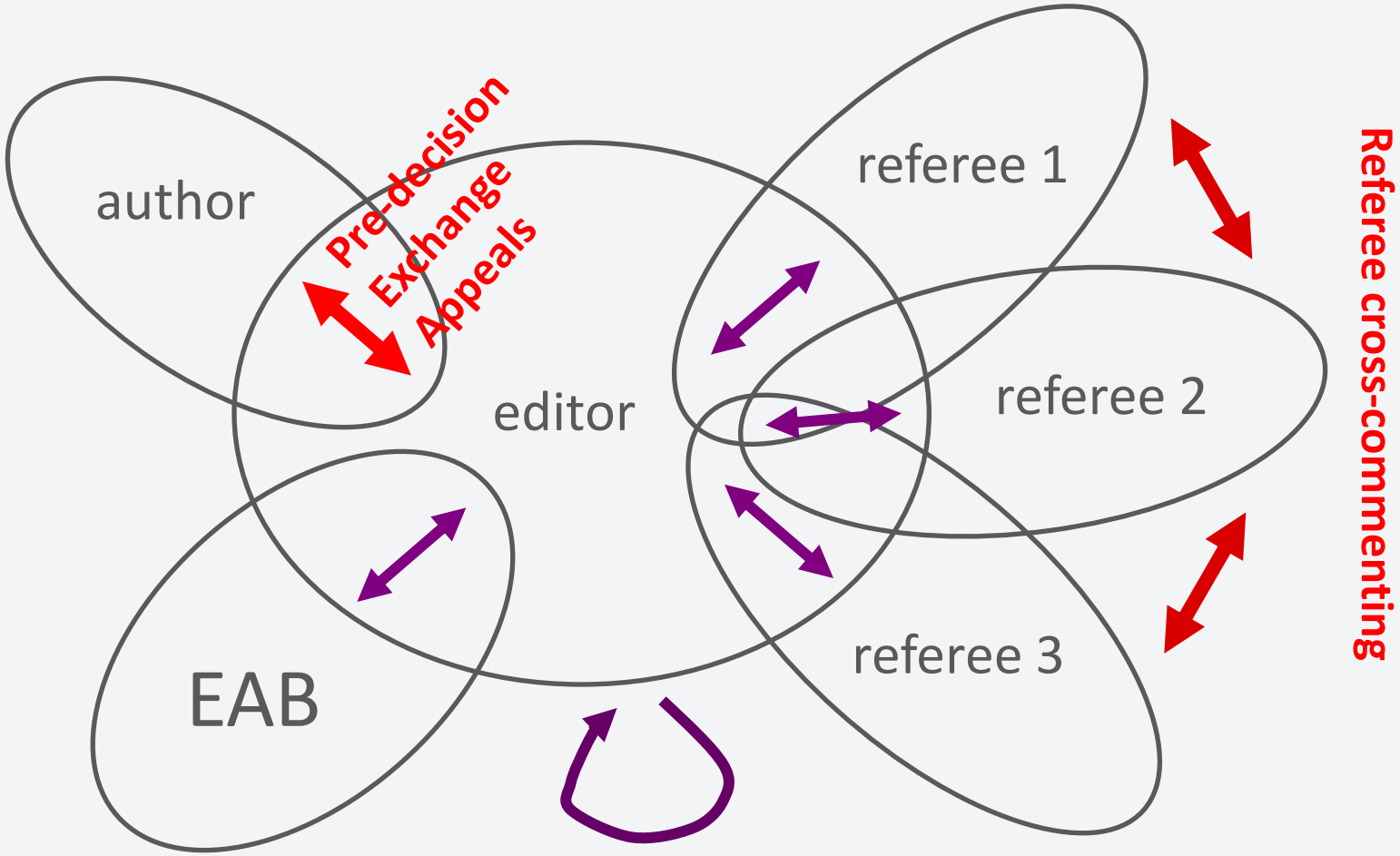
'less is more'

Selective Journals add value

…but they are expensive:

- Selectivity/Quality/Ethics: editorial process
- Reviews/comment/summaries
- Production quality: copyediting, graphics, production

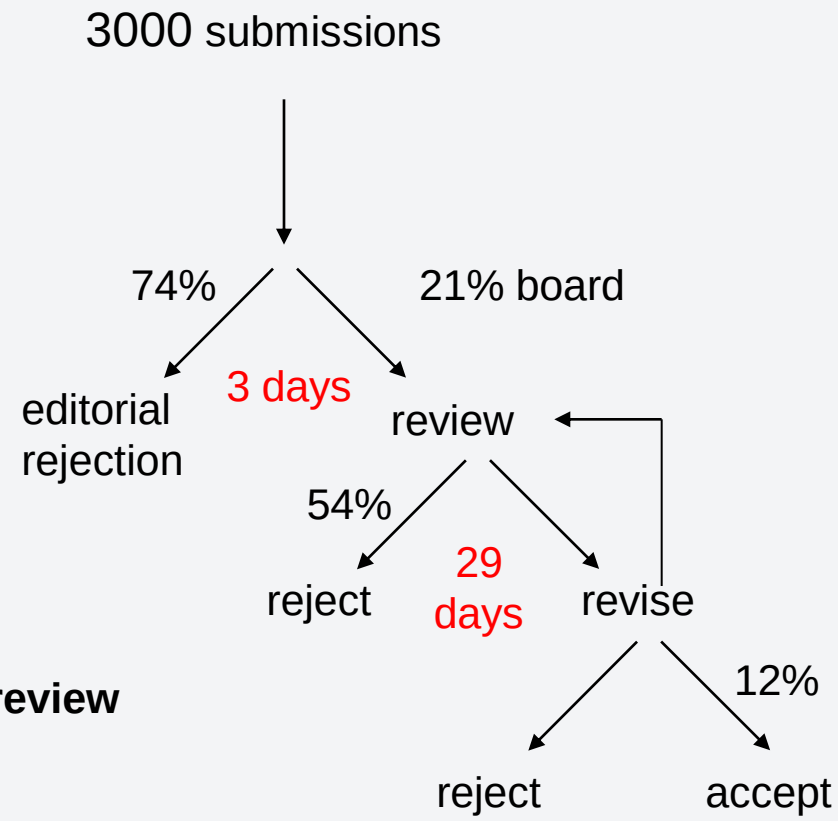
The editorial process



fast & fair editorial process

Professional Editors
- subject specialized
- 3 new manuscripts per day
- read full manuscripts (+ literature)
- commissioning
- conference travel, labvisits & talks

Advisory Editorial Board
- 125, subject balanced
- international (16% Asia/US)
- 3 year turnover



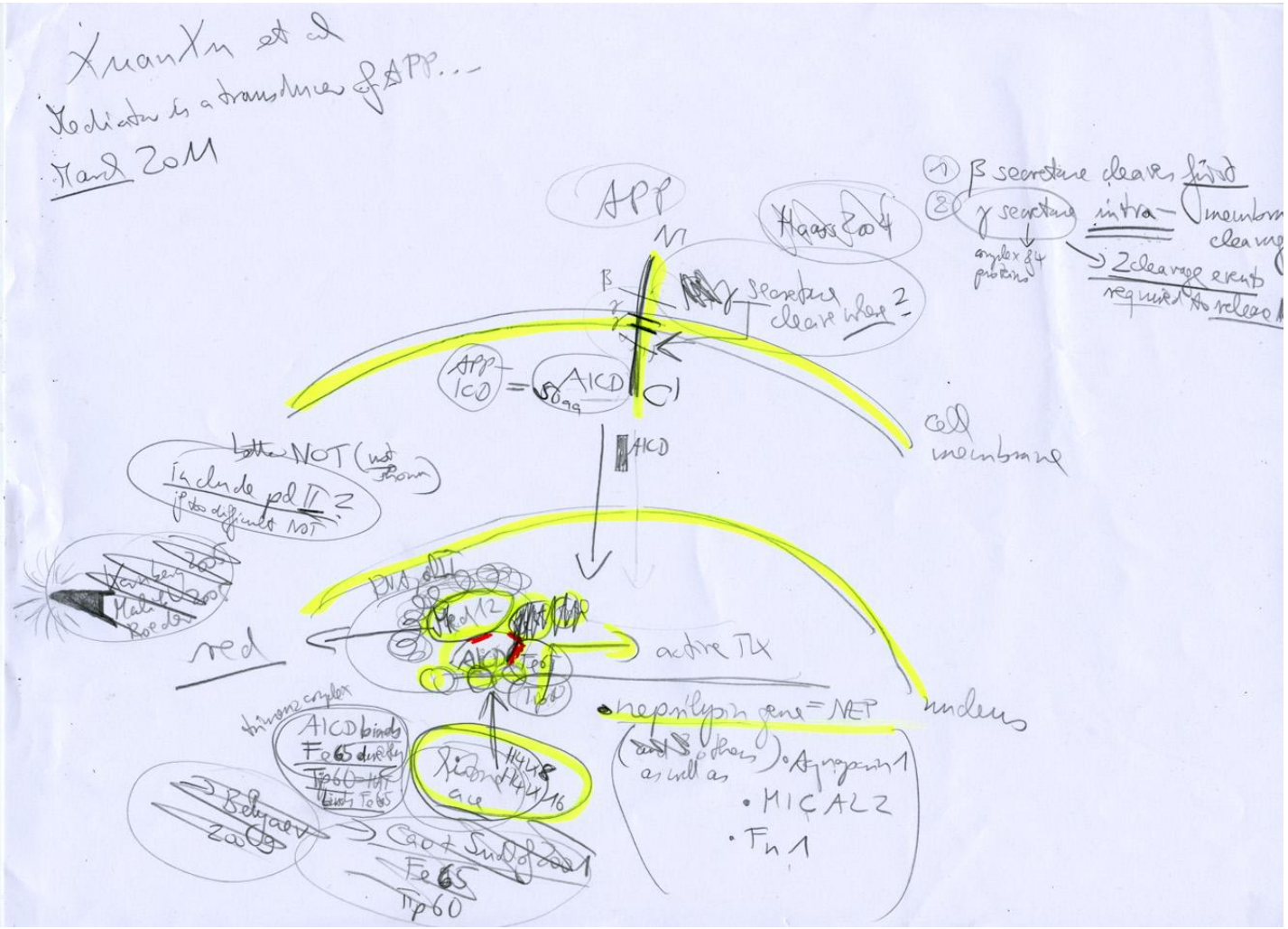
- **> 90% manuscripts undergo 1 major round of review**
- **<3% of revisions are rejected**
- **Appeals (6.4%); few succeed (<10%)**

Fair& Efficient Editorial Process

- **Scooping protection: throughout submission and invited revision (3 months)**
- **Commitment to one major round of revision**
- **Detailed decision letters, clearly specifying required revision**
- **Fair evaluation of appeals**
- **High Speed**
- **Interjournal manuscript transfers**
- **Cross-referee commenting**

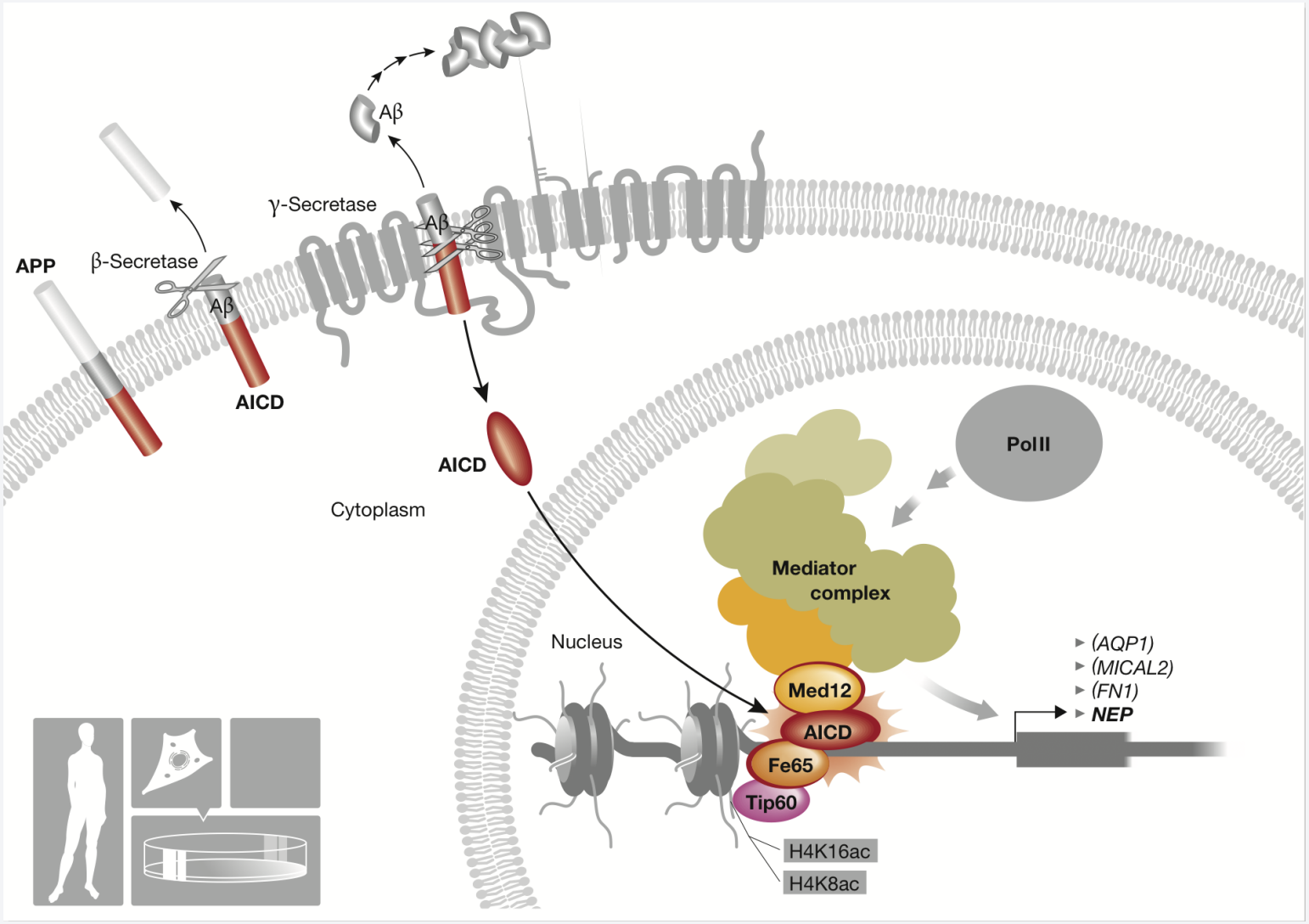
Added value

Copyediting, figures, proofreading,
Reviews, Summaries
Publishing policies
Image & data checks; Plagiarism check



Visual Abstracts

THE EMBO JOURNAL | molecular systems biology | EMBO Molecular Medicine | EMBO reports



EMBO Publications

Access to Molecular Biology research

	acceptable delay	*The EMBO Journal*
• General Public:	1 year	☑
• Academics:	none	☑ ☒ *
• Global search engines:	none	☑ *

* 17% *EMBO Open; site licence holders*

* Journal search and Google index full pages even of non-OA content

Open Access at EMBO

EMBO Publications

why? reach whole community

search

self archiving versioning problem

hybrid currently not sustainable

‘Green Route’

Self Archiving has limitations:

- Versioning: pre-production version remains in the public record
- Expensive: redundancy
- No added value: Search

‘Golden Route’

Open Access at EMBO

EMBO Publications

- *MSB* OA since 2005 (*sustained by EJ*)
- 6 months green route assisted self archiving on PMC/UKPMC
- 12 months final version OA (also on PMC/UKPMC)
- *EMBO Open* (15% research papers in 2010)
- Short reviews OA

plans: > EMBO Molecular Medicine OA

> open data >>> data search

financing: > low threshold publishing?

> subscriptions to reviews/news

Hybrid / Open Choice

- Allows ‘market’ to adjust to OA naturally
- Author charges are returned to libraries:
  - % vs. $/$
  - all libraries vs. OA contributing libraries
- At EMBO, charges are currently < costs

Excluded by DFG:

> ‘Die Open-Access-Freischaltung von Aufsätzen in prinzipiell subskriptionspflichtigen Zeitschriften nach dem Modell des "Open Choice" ist nicht förderfähig.’
>
> *Merkblatt 'Open Access Publizieren’ (2010)*

$/€

EMBO Publications

The main hurdle to OA is the lack of

<u>designated funding</u>

e.g. DFG: 2,000€

we'd need to charge more than double

We cannot endorse an OA business model that may prevent authors from publishing

The financial ‘catch 22’

Funders can finance OA
Funders can incentivize OA

The financial ‘catch 22’

How to ensure *all* authors can afford OA?

publisher can waive charges (e.g. HINARI)

funders can block fund compliant journals

Are charges >4,000€ excessive?

small % of research funding

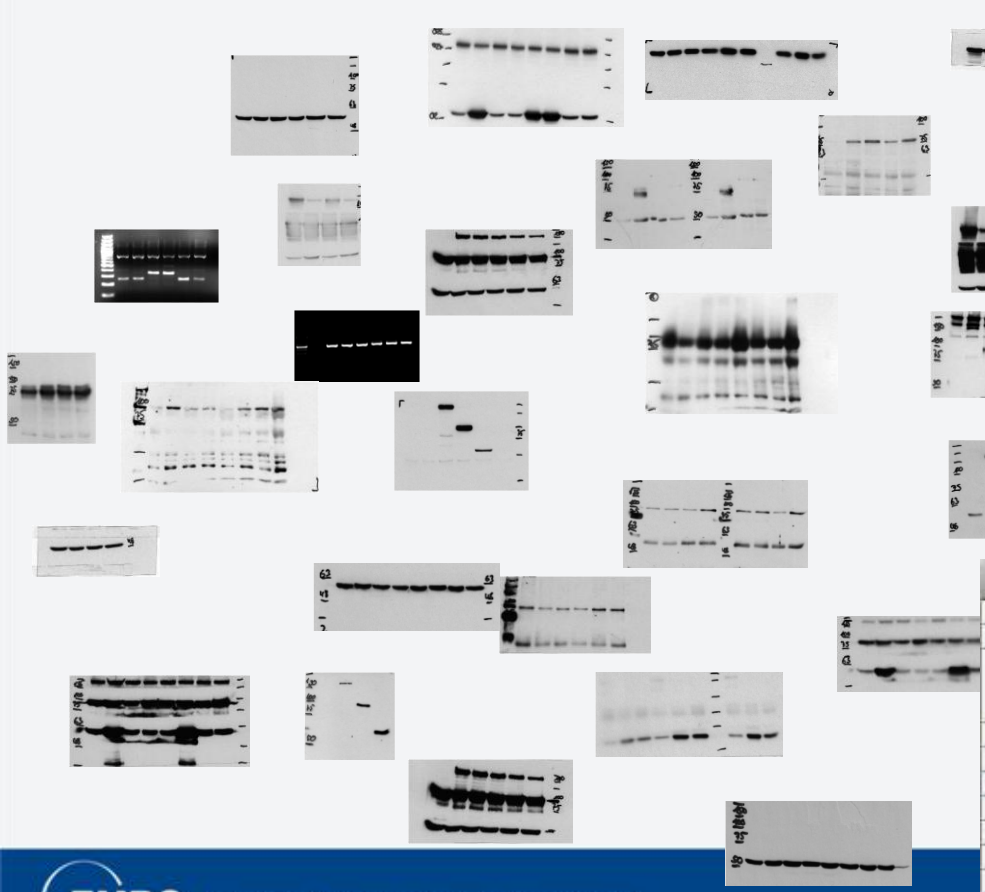
Alternatives

- OA research papers with subscription based reviews/commentary
- ‘(Pre)Pay per view’
- Text and data opened only to search
- Open Data  ***EMBO SourceData***

Add *Source* Data to Papers: Gels, Blots & Graphs

EMBO Publications

The lab book



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8	120	0.384442827	0.216360469	0.458929493
9				
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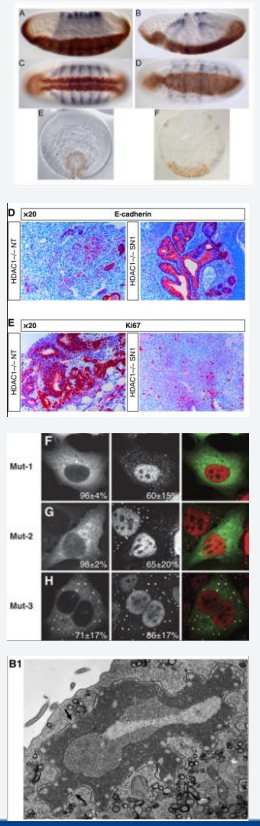
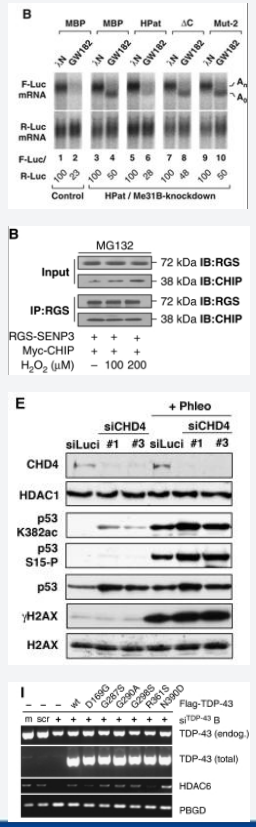
Ready

The paper

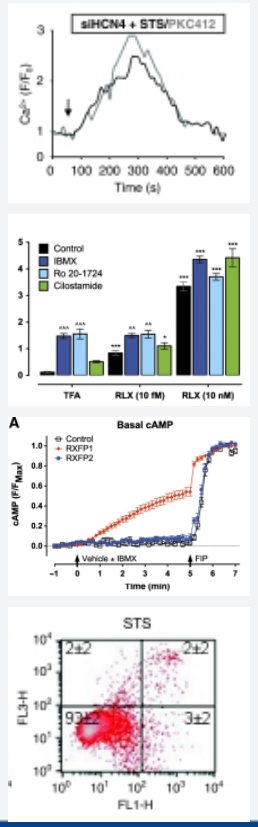
Micrographs



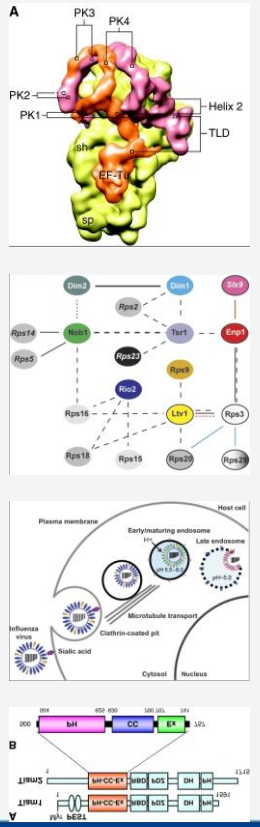
Gels



Graphs



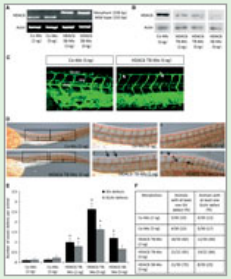
Schemata



Source Data

EMBO Publications

Figure 2.



Silencing of HDAC6 impairs embryonic vessel formation in zebrafish. (**A**) Aberrant splicing of *Danio rerio* HDAC6 mRNA after HDAC6 splice-blocking Mo injection by PCR. Injection of the HDAC6 SB-Mo generated at 24 h post fertilization a morphant signal of 338 bp, whereas the HDAC6 wt signal completely disappeared (253 bp), showing the functionality of the Mo. Whole-zebrafish embryo mRNA was isolated 24 h after Mo injection and subjected to RT–PCR. Actin mRNA expression serves as loading control. (**B**) HDAC6 protein expression was analysed in whole-zebrafish embryo lysate at 24 h after injection of HDAC6 translation-blocking or splice-blocking Mo. Protein lysates were subjected to western blotting with HDAC6-specific antibody. Actin was used as loading control. C–F phenotyping of HDAC6 morphants 48 h post fertilization. (**C**) Representative confocal fluorescence pictures of vessel in the anterior part of *tg*(*fli1:EGFP*) zebrafish embryos after injection of HDAC6 translation-blocking or control Mo. Arrows indicate vessel defects. (**D–F**) For quantification of vessel defects, HDAC6 Mo- or control Mo-treated zebrafish embryos were stained for GFP using anti-GFP antibody. (**D**) Representative overview pictures and higher magnification of two regions of the anterior part of control-Mo-injected and HDAC6 TB-Mo-injected embryos are shown. Arrows indicate vessel defects. (**E**) Quantification of defects in ISVs and DLAVs for HDAC6 and control morphants. Statistical significance was calculated for the respective Mo concentration (n=22–30). (**F**) Penetration of vessel defects for HDAC6 or control Mo. Numbers represent the number of animals and percentage of animals with at least one ISV or DLAV defect. DLAV, dorsal longitudinal anastomotic vessel; ISV, intersegmental vessels; PAV, parachordal vessel.

View full figure (524 KB)

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Supplementary information

Class IIb HDAC6 regulates endothelial cell migration and angiogenesis by deacetylation of cortactin

David Kaluza, Jens Kroll, Sabine Gesierich, Tso-Pang Yao, Reinier A Boon, Eduard Hergenreider, Marc Tjwa, Lothar Rössig, Edward Seto, Hellmut G Augustin, Andreas M Zeiher, Stefanie Dimmeler and Carmen Urbich

The EMBO Journal advance online publication 16 August 2011; doi:10.1038/emboj.2011.298
Published online: 16 August 2011

Jump to: General · Peer review process

← Back to article

General supplementary information

Supplementary Figures 1–9

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Peer review process

Review Process File

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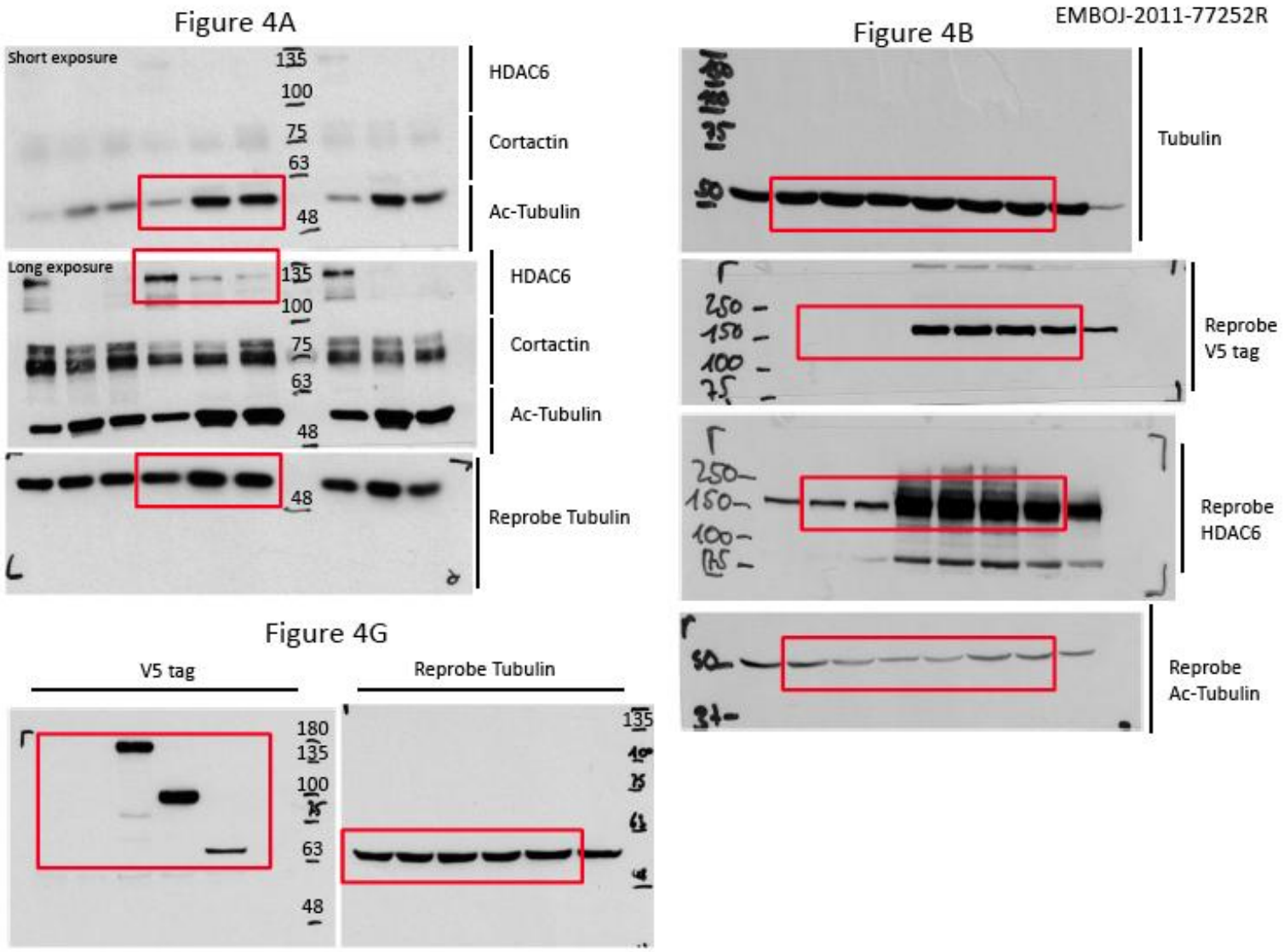
Source Data

Figure 2

Source File for Figure 2A (MB)

Source File for Figure 2B (MB)



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molecular systems biology

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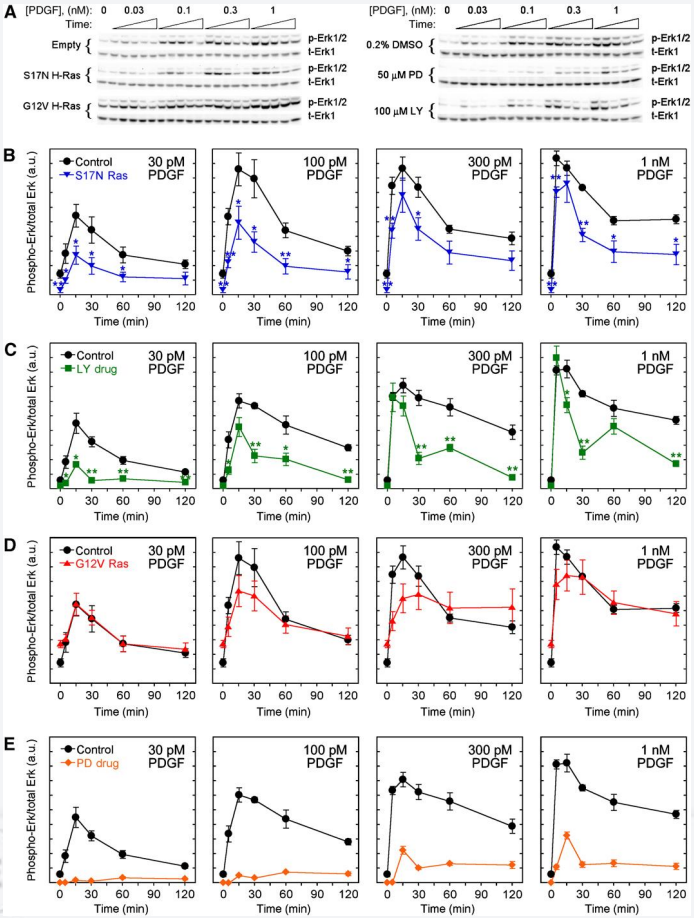

Figure 1

Systematic analysis of PDGF-stimulated Erk phosphorylation kinetics. (**A**) Immunoblots, representative of five or six independent experiments, used to quantify relative amounts of phosphorylated Erk (p-Erk1/2) and total Erk (t-Erk1). NIH 3T3 fibroblasts were modulated by retroviral induction of dominant-negative (S17N) or constitutively active (G12V) H-Ras expression or incubation with inhibitors of PI3K (100 μM LY294002) or MEK (50 μM PD098059). The respective controls are empty pBM-puro vector or 0.2% DMSO. Lysates were prepared from cells that were unstimulated or stimulated with PDGF-BB for 5, 15, 30, 60, or 120 min. (**B–E**) Quantification of Erk phosphorylation, normalized as described under Materials and methods, comparing either S17N Ras expression (B; $n=6$), PI3K inhibition (C; $n=5$), G12V Ras expression (D; $n=6$), or MEK inhibition (E; $n=5$) with their respective controls. Values are reported as mean±s.e.m., and comparisons to control in (B, C) are by Student's t-test: $^{*}P<0.05$; $^{**}P<0.01$. Source data is available for this figure at www.nature.com/msb.

Full figure and legend (660K)

Source data for figure 1BD (6K)

Source data for figure 1CE (5K)

Figures & Tables index

molecular systems biology

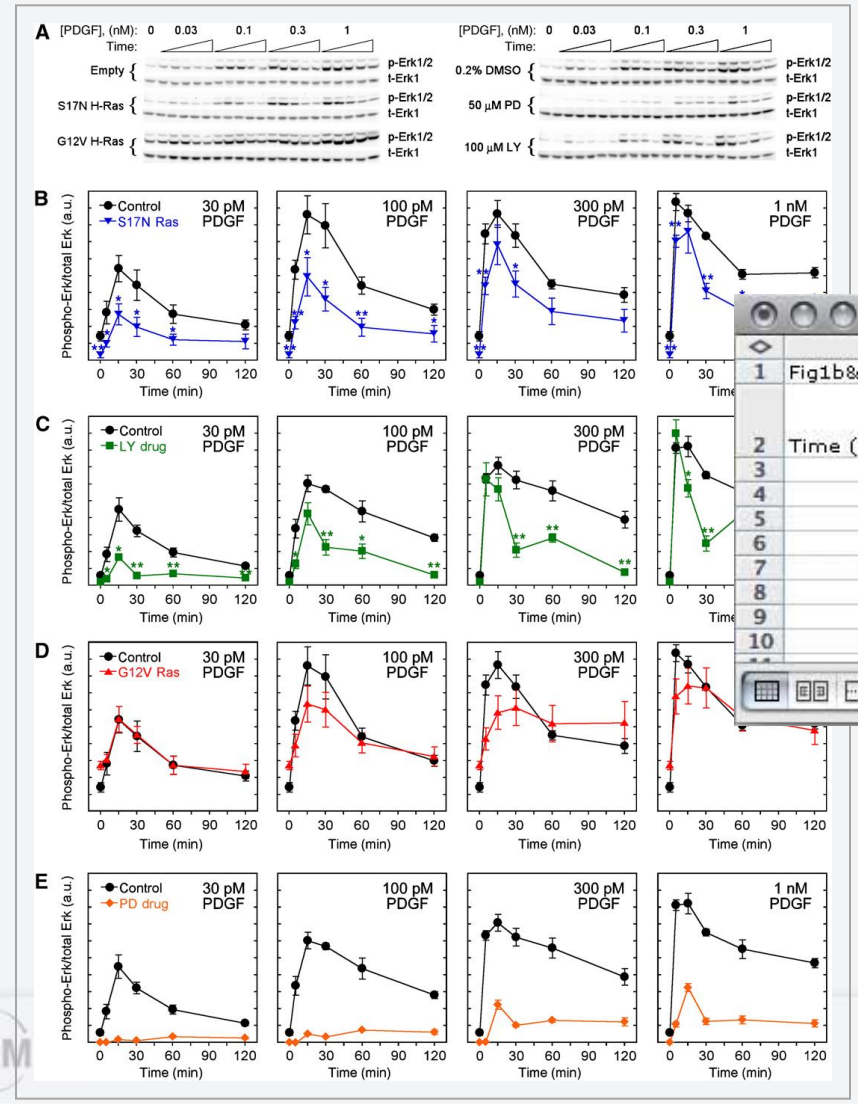

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Fig1b&d_raw.txt

Ready

- Data ‘transparency’
- Re-visualization
- Re-analysis
- Data integration
- Data ‘searchability’

Fig1b&d_raw.txt

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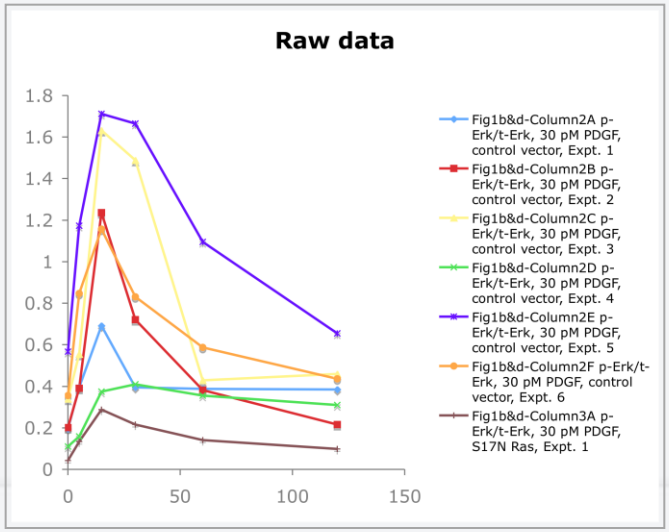
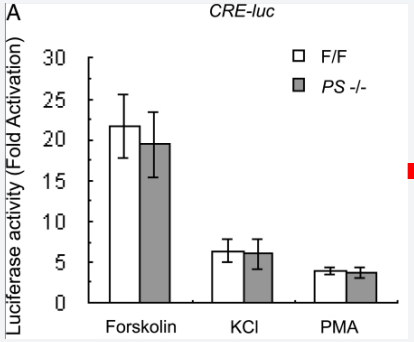


Goal: data-oriented search

Query:



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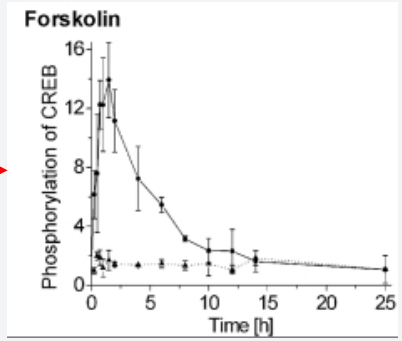

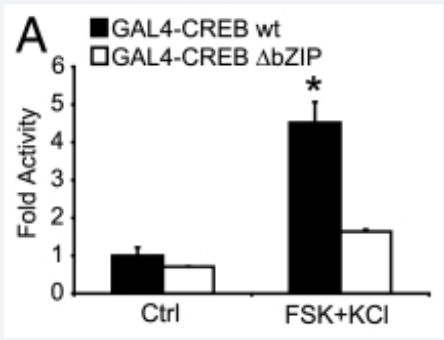

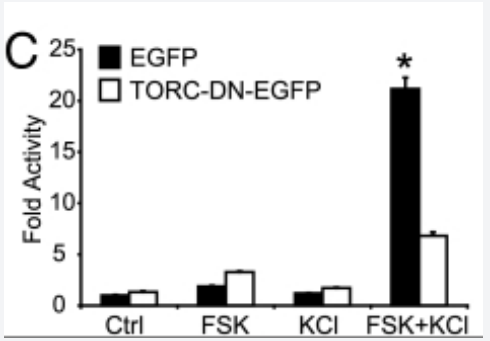

EMBO Science Policy Programme

research policy:

- Responsible conduct of research
- Publication
  - Open access
  - Digital data

research project

- Roles of scientists and research administrators