

Integrating open articles with open data in the life sciences with Europe PubMed Central

Open Repositories 2014, Helsinki

About EMBL-EBI

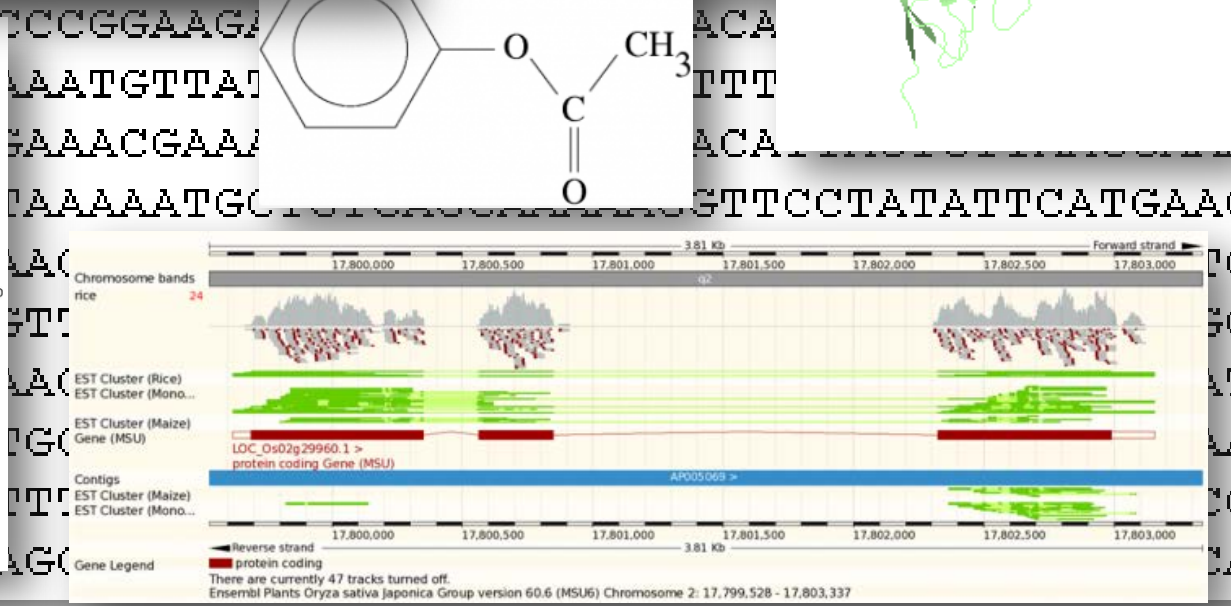
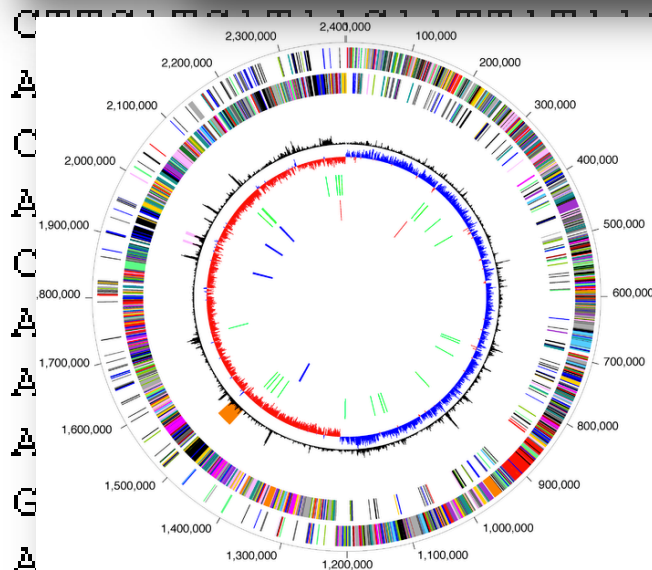
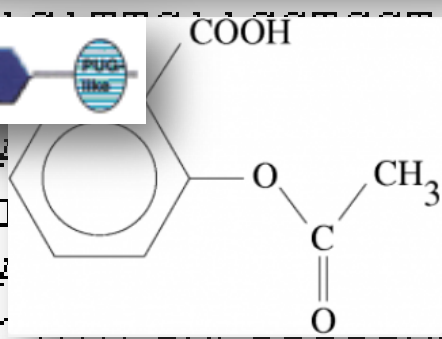
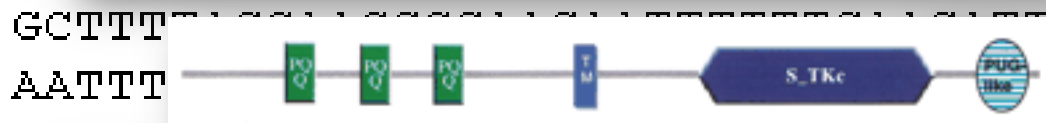
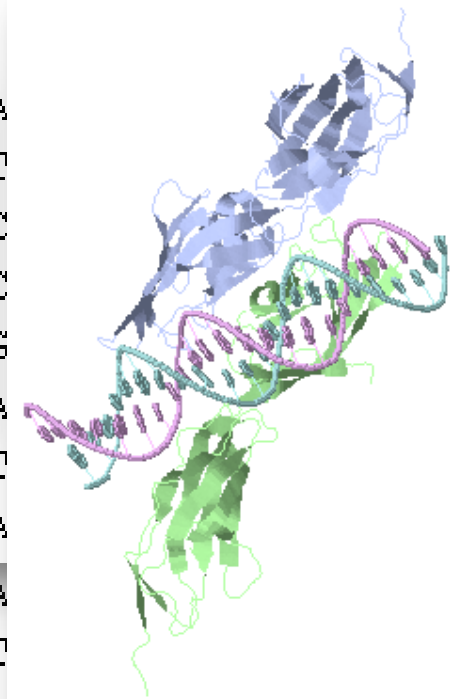
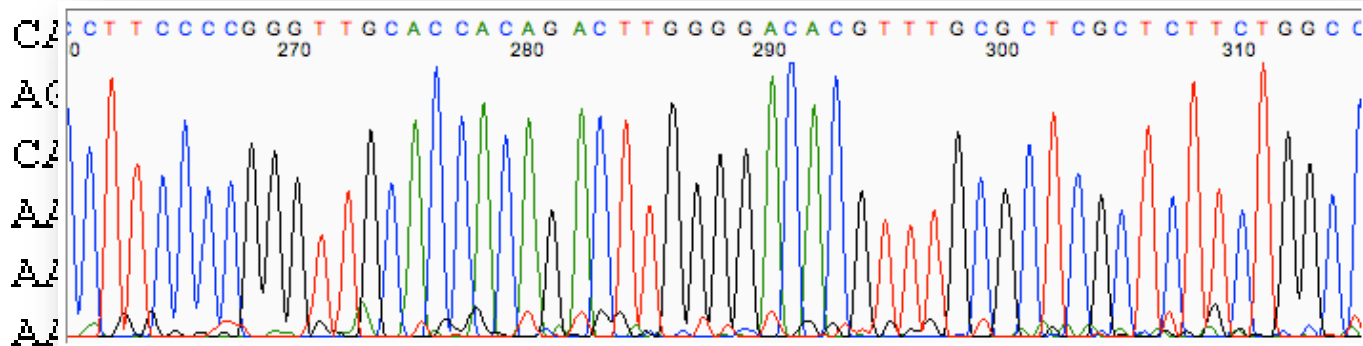
- Part of the European Molecular Biology Laboratory
- International, non-profit research institute
- Europe's hub for biological data services and research



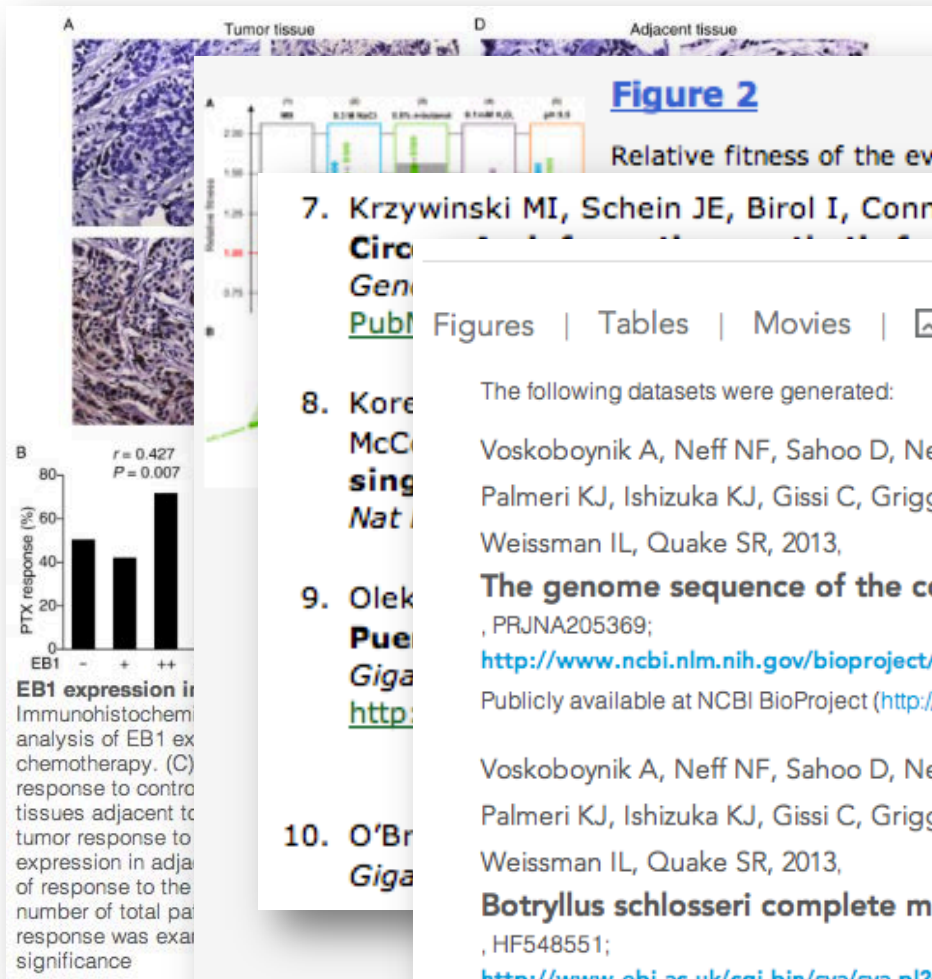
Life Science Data

GACCTCAAAACC
CTTCATCATAAC
AACTACGTCCCC

AGGTGCAGTAATGCC
TTA A A T C A T A T T C C T G



Journal Data Publishing



7. Krzywinski MI, Schein JE, Birol I, Connors J, Gascoyne R, Horsman D, Jones SJ, Marra MA:

Circ

Gen

Publ

Figures | Tables | Movies | Major datasets | Additional files

8. Kore

McC

sing

Nat

The following datasets were generated:

Voskoboynik A, Neff NF, Sahoo D, Newman AM, Pushkarev D, Koh W, Passarelli B, Fan CH, Mantalas GL, Palmeri KJ, Ishizuka KJ, Gissi C, Griggio F, Ben-Shlomo R, Corey DM, Penland L, White RAIII, Weissman IL, Quake SR, 2013,

9. Olek

Pue

Giga

http:

The genome sequence of the colonial chordate, *Botryllus schlosseri*

, PRJNA205369;

<http://www.ncbi.nlm.nih.gov/bioproject/PRJNA205369>

Publicly available at NCBI BioProject (<http://www.ncbi.nlm.nih.gov/bioproject>).

10. O'Br

Giga

Voskoboynik A, Neff NF, Sahoo D, Newman AM, Pushkarev D, Koh W, Passarelli B, Fan CH, Mantalas GL, Palmeri KJ, Ishizuka KJ, Gissi C, Griggio F, Ben-Shlomo R, Corey DM, Penland L, White RAIII, Weissman IL, Quake SR, 2013,

***Botryllus schlosseri* complete mitochondrial genome, isolate sc6a-b**

, HF548551;

<http://www.ebi.ac.uk/cgi-bin/sva/sva.pl?search=Go&query=HF548551>

Publicly available at the European Nucleotide Archive (<http://www.ebi.ac.uk/ena/>).

Data Citation Principles

- Data as legitimate, citable products of research
- Attribution and credit
- Cited as evidence for a claim
- Unique identification
- Access
- Persistence
- Specificity and verifiability (provenance)
- Interoperability and flexibility

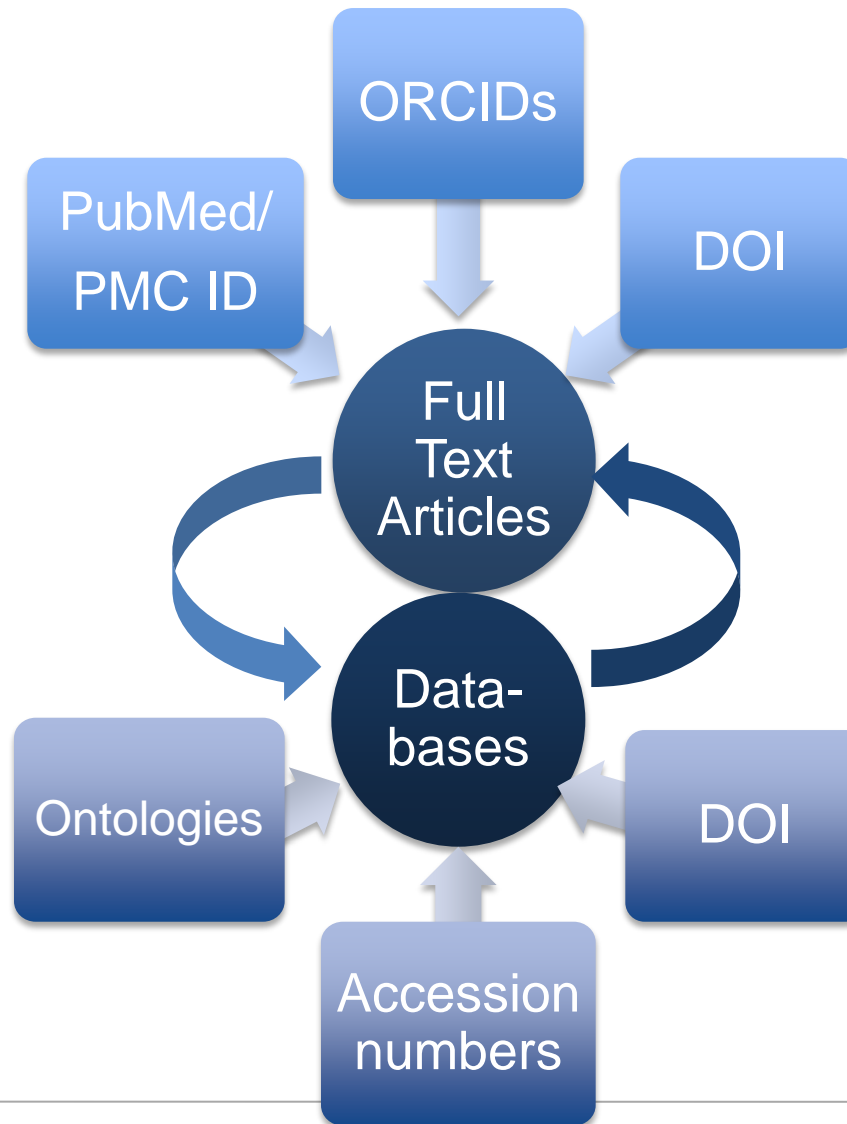
<https://www.force11.org/datacitation>



	Dutch Techcentre for Life Sciences
	Elsevier
	EMBL-EBI
	F1000Research
	figshare
	GigaScience
	ICPSR - Inter-university Consortium for Political and Social Research
	ICSU World Data System
	Int Assoc STM Publishers
	Mendeley

Integrating literature with data

- Reason for citation
- Provenance of data
 - Data submission statements



- Source
- Text mining
 - Added by publisher

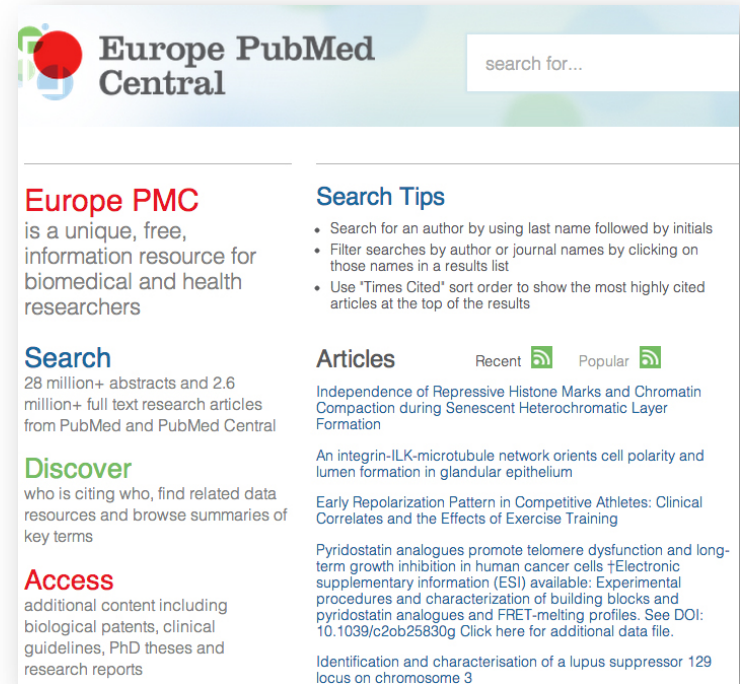
- Reason for citation
- Context for data submission
 - Curation of data

- Source
- Structured meta-data in database record

A stable, freely available, shared repository

Europe PubMed Central:

- Abstracts: 28 million
- Full-text articles: 3 million
- Citation counts, grants, ORCIDs, semantic annotation, data integration
- Grants database
- Labs



Europe PMC is a member of the PMC International Collaboration.

Funded by 26 European funders of life science research

Integrated discovery

Article in
Europe PMC

3

Deep links to data

- Sequences
- Structures
- Reactions
- Models
- Prior art

2

Advanced search
tools (e.g.
citation-count
sort)

1

A sustainable,
robust
repository for
- Individuals
- Funders

4

Article
not in
Europe
PMC



External Links Service

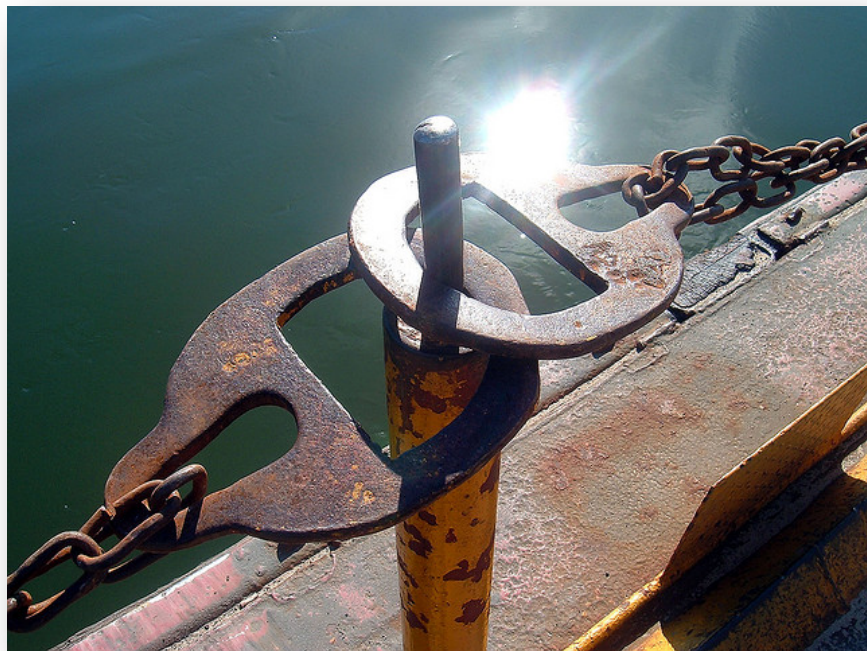


Image courtesy of Diego Torres Silvestre, Flickr


- Links to open, useful content
- Based on identifiers - DOIs
- Increase discoverability
- Links are self administered

- Made available via website and APIs

<http://europepmc.org/LabsLink>

Hands-On: Interlinking Institutional Repositories and Europe PubMed Central
Najko Jahn, Bielefeld University, Germany, Thursday am, P6A

A network of repositories

 The putative tumor suppressor gene PTPN13/PTPL1 induces apoptosis through insulin receptor substrate-1 dephosphorylation.

(PMID:17638892)

Abstract

Citations 2

BioEntities 2

Related Articles 2

External Links 2

Dromard M, Bompard G, Glondu-Lassis M, Puech C, Chalbos D, Fr
INSERM U826, Contrôle de la Progression des Cancers Hormono-I
Cancérologie, Université Montpellier I, CRLC Val d'Aurelle-Paul La
Cancer Research [2007, 67(14):6806-6813]

Type: Journal Article, Research Support, Non-U.S. Gov't
DOI: 10.1158/0008-5472.CAN-07-0513 

Abstract

Gene Ontology(4) Disease

The protein tyrosine phosphatase (PTP) PTPL1/PTPN13 is a c
Indeed, PTPL1 activity has been reported recently to be decr
loss, or promoter methylation in some tumors. We showed pr
necessary for inhibition of Akt activation and induction of apo
cells. Implications of the phosphatidylinositol 3-kinase (PI3K),
progression are now well established, and our study was ther
is sufficient to inhibit this pathway and, if so, to identify a dire
trigger a proapoptotic effect. We first show by complementar
dephosphorylates insulin receptor substrate-1 (IRS-1) in vitro and
using a dominant-negative mutant and RNA interference confirm th
dephosphorylation. Finally, we report that PTPL1 expression is suf
signaling pathway, to inhibit the insulin-like growth factor-I effect o
apoptosis. Altogether, these data provide the first evidence for a c
tumor suppressor gene PTPL1/PTPN13 on apoptosis and identify i
signaling pathway.

Genes & Proteins

Found 5 UniProt record(s) citing this article

 Insulin receptor substrate 1
(UniProt:P35568) 

HAL Open Archive

HAL - author self-archived e-prints

- The Putative Tumor Suppressor Gene PTPN13/PTPL1 Induces Apoptosis through Insulin Receptor Substrate-1 Dephosphorylation.
<http://www.hal.inserm.fr/inserm-00165318>

DEPOD

DEPOD - the human DEPhosphorylation Database is a manually curated database collecting human active phosphatases.

- Substrates (established/proposed) of PTPN13 include "IRS1"
<http://www.koehn.embl.de/depod/showp.php?gene=PTPN13>

Cross Disciplinary Integration

Prokaryotic community structure and diversity in the sediments of an active submarine mud volcano (Kazan mud volcano, East Mediterranean Sea).

(PMID:20370830)



Abstract

Citations

BioEntities

Related Articles

External Links

Pachiadaki MG, Lykousis V, Stefanou EG, Kormas KA

Environmental Chemical Processes Laboratory, Department of Chemistry Heraklion, Greece.

FEMS Microbiology Ecology [2010, 72(3):429-444]

Type: Journal Article, Research Support, Non-U.S. Gov't

DOI: 10.1111/j.1574-6941.2010.00857.x

Abstract

We investigated 16S rRNA gene diversity at a high sediment depth (cm) in an active site of the Kazan mud volcano, East Mediterranean 374 bacterial clones were analysed, which were attributed to 38 and respectively (> or = 98% similarity). Most of the archaeal phylotype -3 members originating from habitats where anaerob they occurred in sediment layers with no apparent *A* Proteobacteria were the most abundant and diverse dominating in most sediment layers and these were cycling. The Deltaproteobacteria included several of of the bacterial phylotypes belonged to 15 known p representatives from similar habitats. Diversity inde Archaea and Bacteria, respectively, revealing differ 20 cm below the sea floor, the prokaryotic communi Archaea and Bacteria. Our study revealed different

Nucleotide Sequences

Found 237 European Nucleotide Archive record(s) citing this article out of which 10 are displayed

- Uncultured archaeon clone KZNMV-10-A9 16S ribosomal RNA gene, partial sequence. (EMBL:FJ712378)
- Uncultured bacterium clone KZNMV-0-B30 16S ribosomal RNA gene, partial sequence. (EMBL:FJ712418)
- Uncultured bacterium clone KZNMV-0-B42 16S ribosomal RNA gene, partial sequence. (EMBL:FJ712426)
- Uncultured bacterium clone KZNMV-0-B56 16S ribosomal RNA gene, partial sequence.

PANGAEA

Data Publisher for Earth & Environmental Science

- Supplementary material: Pachiadaki, MG et al (2011). Prokaryotic community structure and diversity in the sediment of Kazan mud volcano. PANGAEA <http://dx.doi.org/10.1594/PANGAEA.762956>

Knowledge Integration

Covalent EGFR inhibitor analysis reveals importance of reversible interactions to potency and mechanisms of drug resistance.

PMC3890870

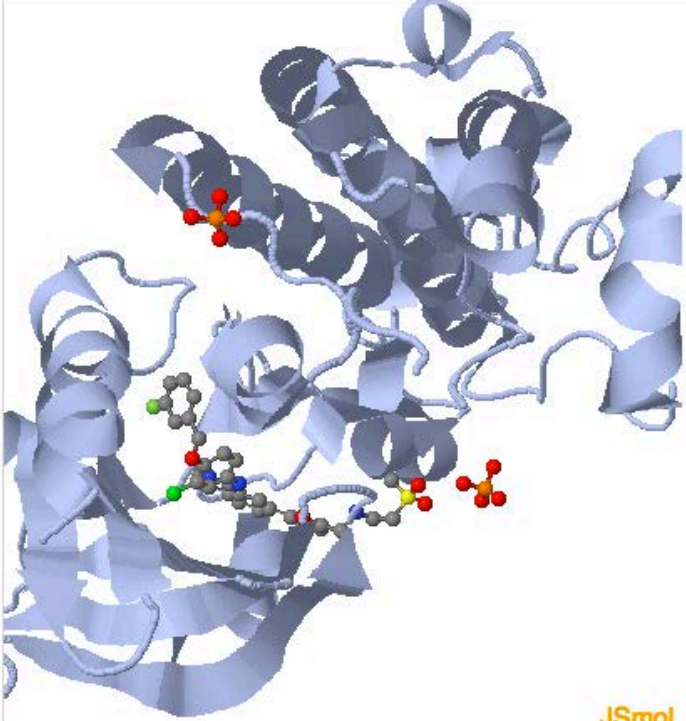
- Alt Metrics
- + Software =
- Bring data to life within article context
- RESTful APIs

Data Citations

Identified 3 unique Data Citations in the full text

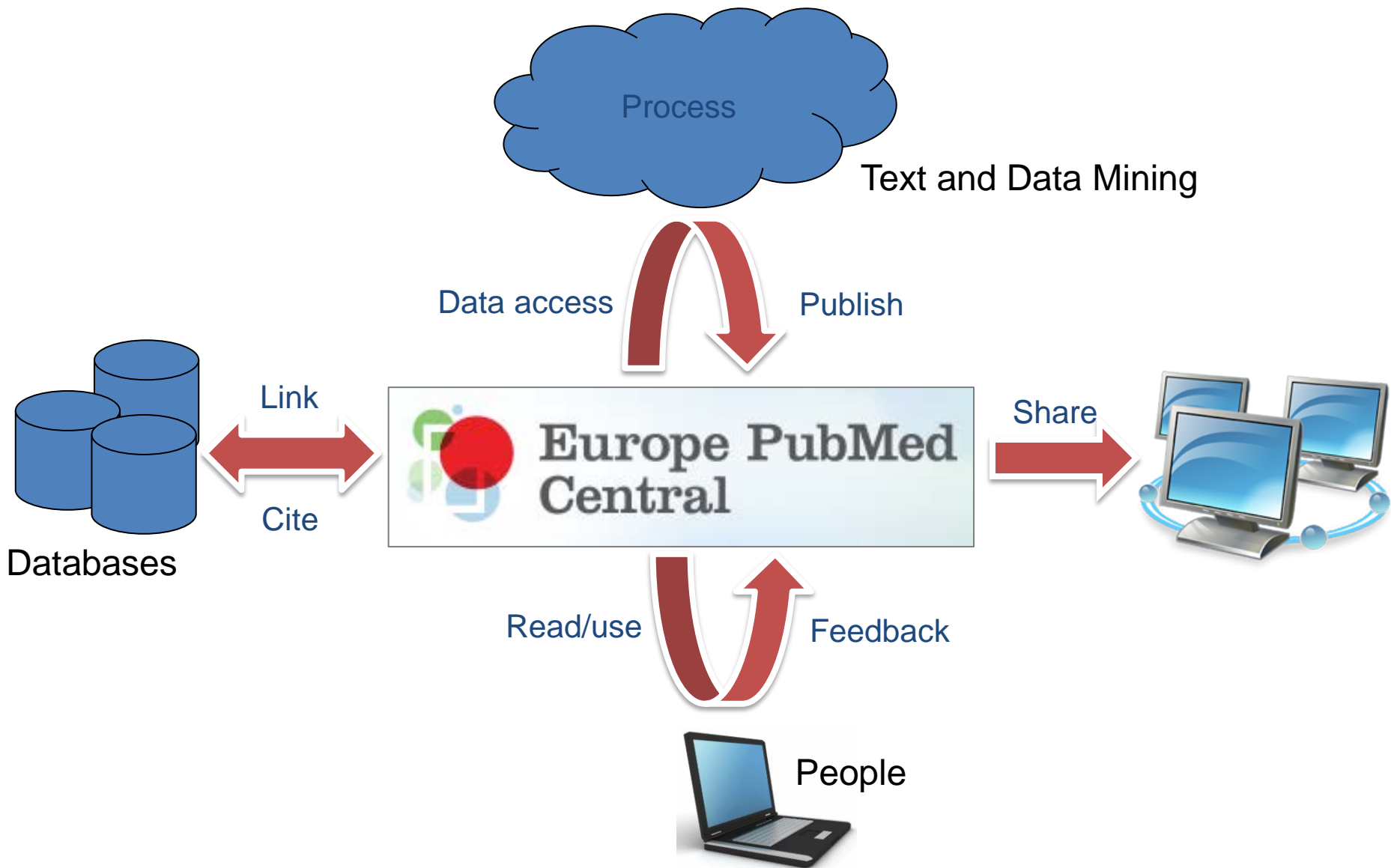
- pdb 1M17 (1) [View Structure](#)
- pdb 1XKK (1) [View Structure](#)

PDB STRUCTURE 1XKK



JSmol

- pdb 2ITZ (1) [View Structure](#)



What's Missing?

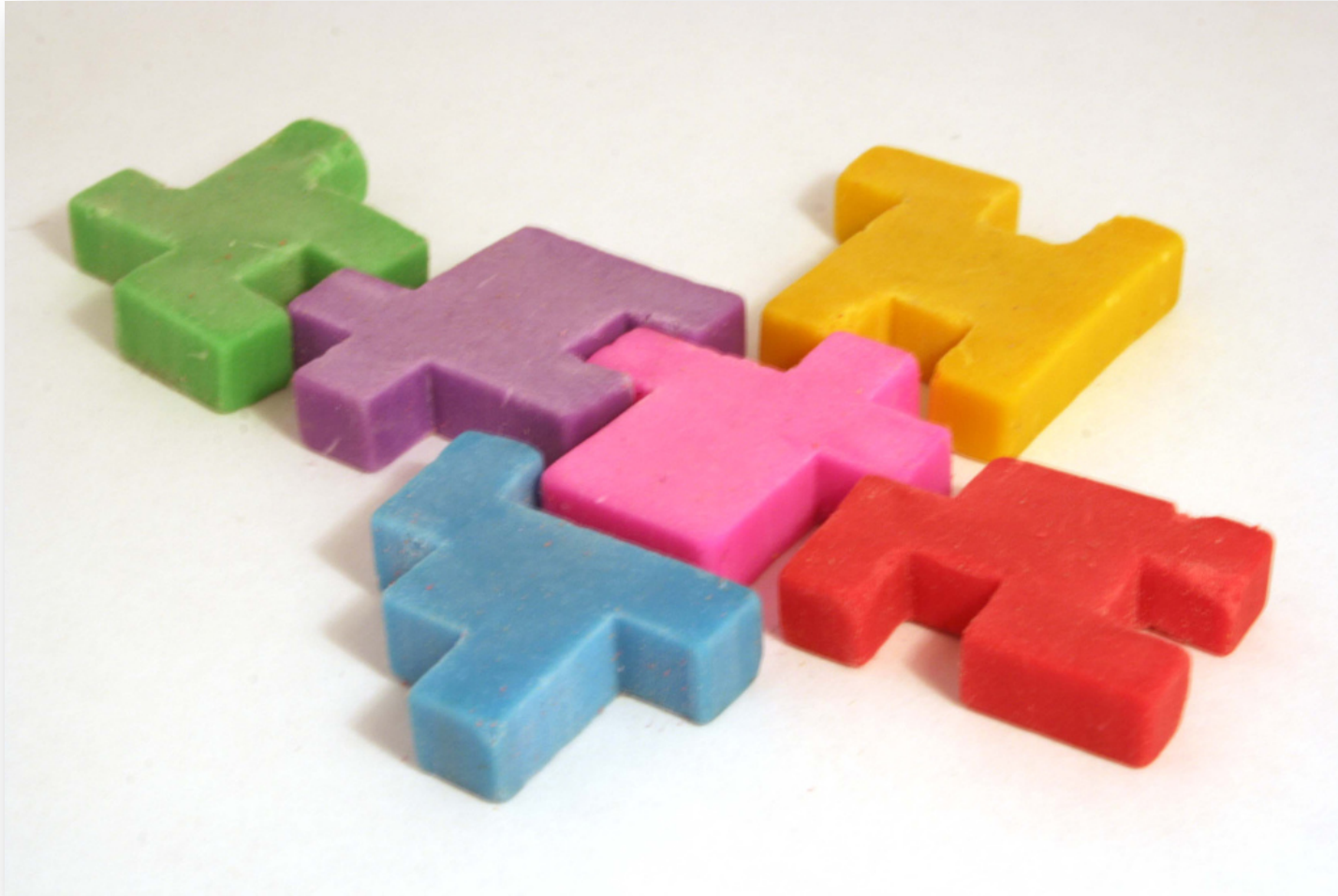


Image by David Singleton, Flickr

Linking works to people

The screenshot displays the ORCID profile of Jo McEntyre on the left and the Europe PubMed Central interface on the right. The ORCID profile includes a search bar, navigation tabs for 'FOR RESEARCHERS', 'FOR ORGANIZATIONS', 'ABOUT', 'HELP', and 'SIGN OUT', and a sidebar with 'My ORCID Record', 'Account Settings', and 'Import Research Activities'. The main content area shows 'Add information about you to' with sections for 'Affiliations' (0), 'Works' (2), 'Personal Information', 'Biography', 'Affiliations', 'Works', 'Grants', and 'Patents'. The Europe PubMed Central interface shows a search for 'AUTH:"McEntyre J" OR AUTH:"Jo McEntyre"', a 'Link publications > Review Bibliography > Send to ORCID' button, and a list of publications with checkboxes for linking to the ORCID profile.

ORCID Profile:

- SEARCH
- ORCID Connecting Research and Researchers
- FOR RESEARCHERS | FOR ORGANIZATIONS | ABOUT | HELP | SIGN OUT
- MY ORCID RECORD | ACCOUNT SETTINGS
- View Public ORCID Record
- Import Research Activities
- 0 Affiliations COMING SOON
- 2 Works UPDATE
- Personal Information UPDA
- Biography No biography added yet.
- Affiliations
- Works UPDATE
- Linking up with entrez Jan DOI: 10.1016/S0168-9525(97)01325-5 [McEntyre, J, 1998, 'Linking up with e
- Ready for a motif submis DOI: 10.1016/S0968-0004(00)88974-4 [Bork, P, Ouzounis, C & McEntyre, J, checklist', *Trends in Biochemical Sc*
- Grants
- Patents

Europe PubMed Central:

- Europe PubMed Central
- AUTH:"McEntyre J" OR AUTH:"Jo McEntyre"
- Link publications > Review Bibliography > Send to ORCID
- Sign in with ORCID
- Select All | Remove All
- Database citation in full text biomedical articles. (PMID:23734176) Kafkas S, Kim JH, **McEntyre JR** PloS one [2013, 8(5):e63184] This article has already been linked to your ORCID
- Application of text-mining for updating protein post-translational modification annotation in UniProtKB. (PMID:23517090) Veuthey AL, Bridge A, Gobeill J, Ruch P, **McEntyre JR**, Bougueleret L, Xenarios I BMC Bioinformatics [2013, 14:104] This article has already been linked to your ORCID
- Measurement of marine osmolytes in mammalian serum by liquid chromatography-tandem mass spectrometry. (PMID:21982861) Lenky CC, McEntyre CJ, Lever M Analytical Biochemistry [2012, 420(1):7-12]

Initial sequencing and analysis of the human genome.

(PMID:11237011)

C, Stange-Thomann N, Stojanovic N, Subramanian A, Wyman D, Rogers J, Sulston J, Ainscough R, Beck S, Bentley D, Burton J, Clee C, Carter N, Coulson A, Deadman R, Deloukas P, Dunham A, Dunham I, Durbin R, French L, Grafham D, Gregory S, Hubbard T, Humphray S, Hunt A, Jones M, Lloyd C, McMurray A, Matthews L,

Abstract

Highlight Terms

Gene Ontology(1) Species(1)

The human genome holds an extraordinary trove of information about human development, physiology, medicine and evolution. Here we report the results of an international collaboration to produce and make freely available a draft sequence of the human genome. We also present an initial analysis of the data, describing some of the insights that can be gleaned from the sequence.

ORCIDiDs

0000-0002-3908-1122

0000-0001-9251-070X

0000-0002-1767-9318

0000-0001-7116-6364

0000-0002-6982-4660

0000-0001-8314-8497

0000-0001-5546-9672

0000-0001-8479-0262

0000-0003-1988-5059

0000-0003-2525-5598

Uptake of ORCID^s in the life sciences

Institutionally, at the EMBL-EBI (June 2nd 2014)

- ~450 ORCID^s have been assigned
- 195 have works attached (~43%)
- 4263 total claims

More widely

- ~ 750,000 articles in Europe PMC have ORCID^s
- This represents ~70K ORCID^s
- ~2/3 of works with DOI (or similar) can be resolved to records in Europe PMC

Copyright Law



Intellectual Property Office

Why use IP? Types of IP IP for Business IP Enforcement

IPO Home

Types of IP

Patents

Trade marks

Designs

Copyright

Other protection

Hargreaves implementation

Patents

Copyright

Consultation events

DCE feasibility study

IPO Home > Types of IP > Hargreaves implementation > Copyright

Hargreaves implementation: Copyright

Progress - latest news

March 2014

Update on progress of Exceptions to Copyright regulations

The Government has today 7 March provided an update on the progress of new exceptions regulations, in response to a written parliamentary question.

Following a technical review in the summer of 2013, the Government has made a number of changes to the draft regulations. The regulations are now subject to final checking, and in accordance with good practice the Department is currently consulting the legal advisers to the Joint Committee on Copyright. This advance scrutiny process usually takes a period of at least two sittings of the House of Commons and will be laid before Parliament and published as soon as this process is complete.

The Government also confirmed that it will be publishing a full response to the technical notes, guidance and other supporting documents alongside the regulations, and that all will be made publicly available on our website.

The full response to the [Parliamentary question](#) can be read on the Parliament website.



Standardisation
in the area of innovation and
technological development,
notably in the field of

Text and Data Mining

Report from the Expert Group





Delivered by:

