



ANYWHERE  
**ACCESS**

# Discovery

Search, Table of Contents

# Discovery

# Research

ACCESS

PubMed search results for 'ngn3'. The search results list several articles, including:  
1. **Expression pattern of Ngn3 in dairy goat testis and its function in spermatogenesis** by Tang F, Yao X, Zhu H, Mu H, Niu Z, Yu M, Yang C, Peng S, Li G, Hu G. *PLoS One* 2014;9(4):e93840. doi:10.1371/journal.pone.0093840.  
2. **Plp and its role in activating Ngn3 and Pdx1 to induce differentiation** by Qin X, Xiao L, Zhao XB, Zhou XK. *PLoS One* 2015;10(3):e0120900. doi:10.1371/journal.pone.0120900.  
3. **Hnf1b controls pancreatic morphogenesis and the generation of Ngn3-expressing cells** by De Vos MG, Kopp AJ, Habel C, Sander M, Campioni S, Hamada C. *Development* 2015;142(16):3457-3466. doi:10.1242/dev.131706.

Dimensions database search results for 'ngn3'. The results show a list of publications with filters for publication year, publisher, and researcher. A line graph shows the number of publications over time, with a peak around 2014. The graph shows a steady increase in publications from 2008 to 2014, with a slight dip in 2013.

A collage of research papers and a letter. The papers include:  
- **Transcription factor hes6/csox nuclear factor 3 regulates pancreatic endocrine cell differentiation and controls expression of the proendocrine gene ngn3** by Wang F, Yao X, Zhu H, Mu H, Niu Z, Yu M, Yang C, Peng S, Li G, Hu G. *PLoS One* 2014;9(4):e93840.  
- **PDX1-NVP16 fusion protein, together with NeuroD or Ngn3, markedly induces insulin gene transcription and ameliorates glucose intolerance** by Wang F, Yao X, Zhu H, Mu H, Niu Z, Yu M, Yang C, Peng S, Li G, Hu G. *PLoS One* 2014;9(4):e93840.  
- **The Sagittarius impact as an architect of spirality and outer rings in the Milky Way** by Chen W, Powell J, Jones R, Balazs A, Gilpin M, Sigurdsson B. *ApJ* 2015;804(2):L14.  
- **Letter: The Sagittarius impact as an architect of spirality and outer rings in the Milky Way** by Chen W, Powell J, Jones R, Balazs A, Gilpin M, Sigurdsson B, Sakurai Chikaharu.

Figure 1. Theoretical model of the Sagittarius impact on the structure of the Milky Way. The Sagittarius impact is shown as a dark blue spot in the center of the Milky Way. The impact is shown as a dark blue spot in the center of the Milky Way. The impact is shown as a dark blue spot in the center of the Milky Way.

# Challenges with Access



# Gaps in Coverage



3 Biotech



Achievements in the Life Sciences



ACS Chemical Neuroscience



Acta Agriculturae Scandinavica,



Acta Agriculturae Scandinavica,



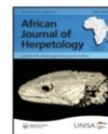
Acta Agronomica Sinica



Acta Biochimica et Biophysica



Acta Botanica Croatica



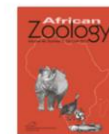
African Journal of Herpetology



African Journal of Marine Science



African Journal of Wildlife Research



African Zoology



Acta Botanica Gallica



Acta Botanica Hungarica



Acta Chiropterologica



Acta Crystallographica Section D:



Acta Cytologica



Acta Ethologica



Acta Horti Bucurestiensis



Acta Musei Silesiae, Scientiae



Agricultural and Food Economics



Agricultural and Forest Entomology



Agriculture and Agricultural



Agriculture & Food Security



Acta Ornithologica



Acta Palaeontologica Polonica



Acta Physiologiae Plantarum



Acta Physiologica



Acta Physiologica Scandinavica



Acta Scientifica Naturalis



Acta Zoologica



Acta Zoologica Lituanica



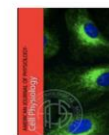
Air, Soil and Water Research



AJOB Neuroscience



AJP: Advances in Physiology Education



AJP: Cell Physiology



Adansonia



Addiction Biology



Advances in Animal Biosciences



Advances in Biological Regulation



Advances in Enzyme Regulation



African Entomology



African Invertebrates



African Journal of Ecology



AJP: Regulatory, Integrative and



AJP: Renal Physiology



Alcohol



Algological Studies

# Gaps in Coverage



3 Biotech



Achievements  
in the Life  
Sciences



ACS Chemical  
Neuroscience



Acta  
Agriculturae  
Scandinavica,  
Animal Science



Acta  
Agriculturae  
Scandinavica,  
Plant Science



Acta  
Agronomica  
Sinica



Acta  
Biochimica et  
Biophysica



Acta Botanica  
Croatica



African Journal  
of Herpetology



African Journal  
of Marine  
Science



African Journal  
of Wildlife  
Research



African  
Zoology



Acta Botanica  
Gallica



Acta Botanica  
Hungarica



Acta  
Chiropterologica



Acta  
Crystallographica  
Section D



Acta  
Cytologica



Acta  
Ethologica



Acta Horti  
Botanicus  
Bucurestiensis



Acta Musei  
Silesiae,  
Scientiae



Agricultural  
and Food  
Economics



Agricultural  
and Forest  
Entomology



Agriculture  
and  
Agricultural  
Procedia



Agriculture &  
Food Security



Acta  
Ornithologica



Acta  
Palaeontologica  
Polonica



Acta  
Physiologiae  
Plantarum



Acta  
Physiologica



Acta Physiologica  
Scandinavica



Acta  
Scientifica  
Naturalis



Acta Zoologica



Acta Zoologica  
Lituanica



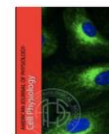
Air, Soil and  
Water  
Research



AJOB  
Neuroscience



AJP: Advances  
in Physiology  
Education



AJP: Cell  
Physiology



Adansonia



Addiction  
Biology



Advances in  
Animal  
Biosciences



Advances in  
Biological  
Regulation



Advances in  
Enzyme  
Regulation



African  
Entomology



African  
Invertebrates



African Journal  
of Ecology



AJP:  
Regulatory,  
Integrative and  
Molecular  
Physiology



AJP: Renal  
Physiology



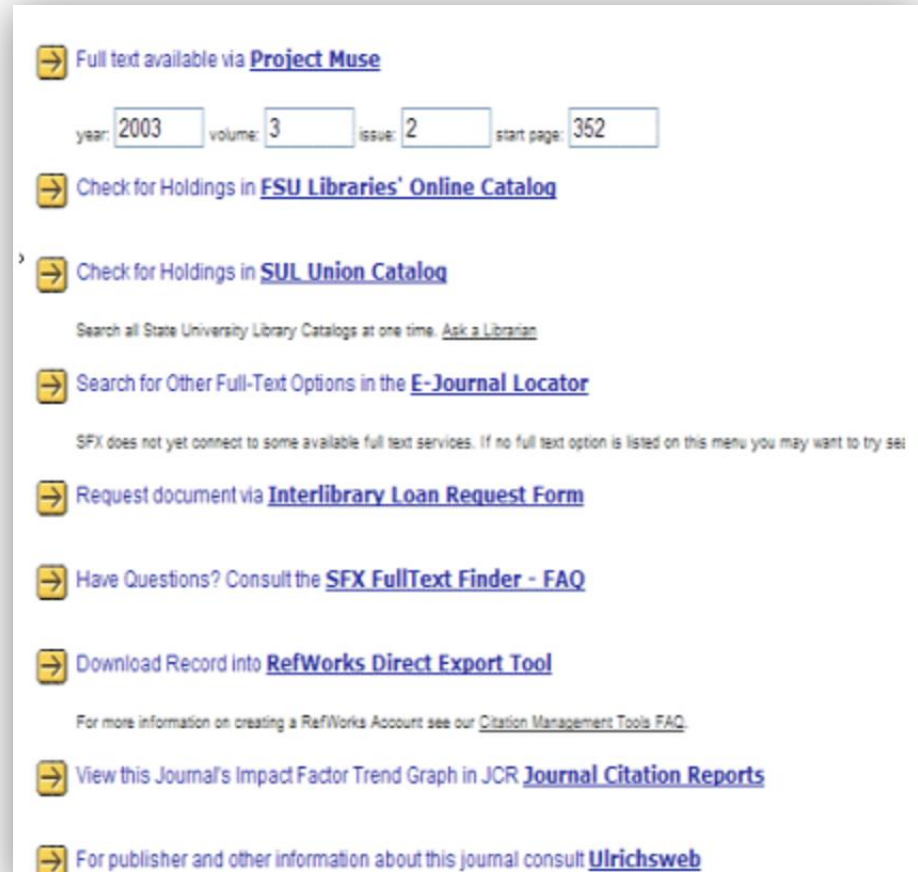
Alcohol



Algal  
Studies

# Link Resolvers

- Confusion: too many options
- Dead ends
- Errors in knowledgebase often never corrected
- Lack of confidence drives users away



→ Full text available via [Project Muse](#)

year:  volume:  issue:  start page:

→ Check for Holdings in [FSU Libraries' Online Catalog](#)

→ Check for Holdings in [SUL Union Catalog](#)

Search all State University Library Catalogs at one time. [Ask a Librarian](#)

→ Search for Other Full-Text Options in the [E-Journal Locator](#)

SFX does not yet connect to some available full text services. If no full text option is listed on this menu you may want to try set

→ Request document via [Interlibrary Loan Request Form](#)

→ Have Questions? Consult the [SFX FullText Finder - FAQ](#)

→ Download Record into [RefWorks Direct Export Tool](#)

For more information on creating a RefWorks Account see our [Citation Management Tools FAQ](#).

→ View this Journal's Impact Factor Trend Graph in JCR [Journal Citation Reports](#)

→ For publisher and other information about this journal consult [Ulrichsweb](#)



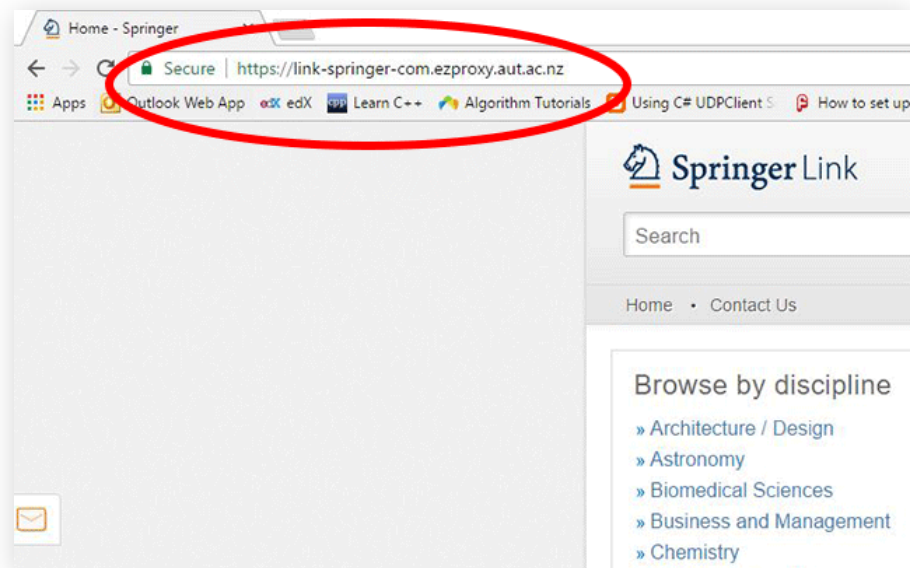
# On/off campus Access with EZProxy

## Challenges:

- Off proxy if user journey doesn't begin at library
- Mobile integration
- Not integrated with holdings

## Alternatives:

- Shibboleth, RA21





# Paywalls

# What do researchers do with paywalls?

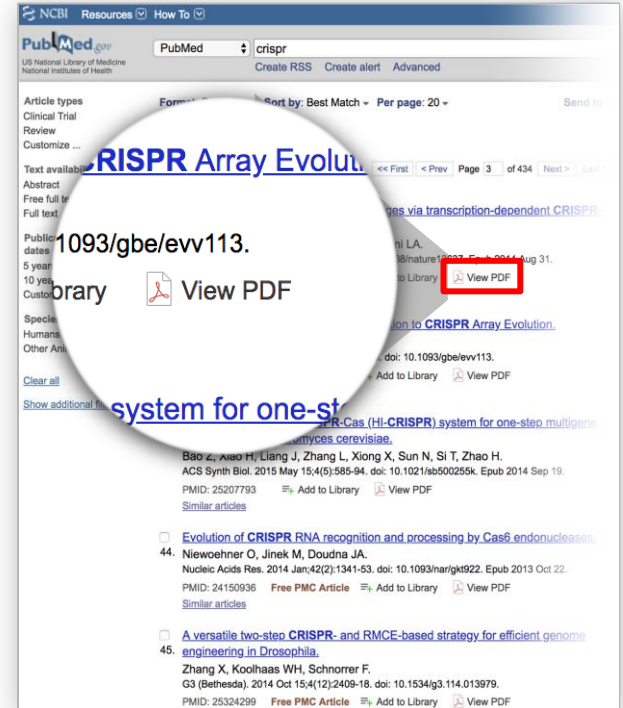
- Google Scholar - often links to “rogue sites” with full text
- ResearchGate, SciHub
- Email the author
- Ask the library (often a last resort)
  - Mediated ILL
  - Document delivery
  - Purchase on publisher website



ANYWHERE  
**ACCESS**

# What is Anywhere Access?

- Software that connects researchers to OA, Subscription, and On-Demand journal articles.
- Works with existing library & IT software: knowledgebase, ezproxy, SSO
- Instant 1-click access to literature
- Efficient access to unmediated on-demand content
- Works on/off campus and on mobile



# Guides the researcher to library-provided content

The image shows a screenshot of the PubMed website. At the top, there is a navigation bar with 'NCBI Resources' and 'How To' menus, and a 'Sign in to NCBI' link. Below this is the 'PubMed.gov' header with a search bar containing the term 'crispr'. The search results are displayed in a list format. A red circle highlights the 'View PDF' button for the first search result, and a red arrow points from this button to the PDF viewer on the right. The PDF viewer shows the title 'The Contribution of Genetic Recombination to CRISPR Array Evolution' by Anne Kupczok\*, Giddy Landan and Tal Dagan. The abstract is visible below the title.

US National Library of Medicine  
National Institutes of Health

Search: crispr

Format: Summary | Sort by: Best Match | Per page: 20

Search results  
Items: 41 to 60 of 90

41. [Contribution of Genetic Recombination to CRISPR Array Evolution](#)  
Giddy Landan, Anne Kupczok, Tal Dagan. *Genome Biology and Evolution*. 2015 Aug 1;7(8):1363-72. doi: 10.1093/gbe/evv113. Epub 2014 Aug 14. PMID: 25207793. [View PDF](#)

42. [The Contribution of Genetic Recombination to CRISPR Array Evolution](#)  
Kupczok A, Landan G, Dagan T. *Genome Biology and Evolution*. 2015 Aug 1;7(8):1363-72. doi: 10.1093/gbe/evv113. PMID: 26083000. [View PDF](#)

43. [Homology-integrated CRISPR-Cas \(HI-CRISPR\) system for one-step disruption in \*Saccharomyces cerevisiae\*](#)  
Bao Z, Xiao H, Liang J, Zhang L, Xiong X, Sun N, Si T, Zhao H. *ACS Synth Biol*. 2015 May 15;4(5):585-94. doi: 10.1021/sb500255k. Epub 2014 Sep 11. PMID: 25207793. [View PDF](#)

44. [The Contribution of Genetic Recombination to CRISPR Array Evolution](#)  
Kupczok A, Landan G, Dagan T. *Genome Biology and Evolution*. 2015 Aug 1;7(8):1363-72. doi: 10.1093/gbe/evv113. PMID: 26083000. [View PDF](#)

My Library | Download PDF | Add To Library | Supplements 4 | References 85 | Cited By 72 | RCR: 8.70

## The Contribution of Genetic Recombination to CRISPR Array Evolution

Anne Kupczok\*, Giddy Landan and Tal Dagan  
Institute of General Microbiology, Christian-Albrechts-University Kiel, Germany  
\*Corresponding author: E-mail: akupczok@ifam.uni-kiel.de  
Accepted: June 9, 2015

### Abstract

CRISPR (clustered regularly interspaced short palindromic repeats) is a microbial immune system against foreign DNA. Recognition sequences (spacers) encoded within the CRISPR array mediate the immune reaction in a sequence-specific manner. The known mechanisms for the evolution of CRISPR arrays include spacer acquisition from foreign DNA elements at the time of invasion and array erosion through spacer deletion. Here, we consider the contribution of genetic recombination between homologous CRISPR arrays to the evolution of spacer repertoire. Acquisition of spacers from exogenous arrays via recombination may confer the recipient with immunity against unencountered antagonists. For this purpose, we develop a novel method for the detection of recombination in CRISPR arrays by modeling the spacer order in arrays from multiple strains from the same species. Because the evolutionary signal of spacer recombination may be similar to that of pervasive spacer deletions or independent spacer acquisition, our method entails a robustness analysis of the recombination inference by a statistical comparison to resampled and perturbed data sets. We analyze CRISPR data sets from four bacterial species: two Gammaproteobacteria species harboring CRISPR type I and two Streptococcus species harboring CRISPR type II loci. We find that CRISPR array evolution in *Escherichia coli* and *Streptococcus agalactiae* can be explained solely by vertical inheritance and differential spacer deletion. In *Pseudomonas aeruginosa*, we find an excess of single spacers potentially incorporated into the CRISPR locus during independent acquisition events. In *Streptococcus thermophilus*, evidence for spacer acquisition by recombination is present in 5 out of 70 strains. Genetic recombination has been proposed to accelerate adaptation by combining beneficial mutations that arose in independent lineages. However, for most species under study,

1 / 10

# Integrated with Publishers & Discovery Services

nature.com > nature > articles > article

a natureresearch journal

**nature**  
International journal of science

Altmetric: 421 Citations: 219 More detail >>

Article | OPEN

## Elephant shark genome provides unique insights into gnathostome evolution

Byrappa Venkatesh<sup>1</sup>, Alison P. Lee<sup>1</sup>, ... Wesley C. Warren<sup>1</sup>

[View PDF](#) Add to Library

Nature **505**, 174–179 (09 January 2014)  
doi:10.1038/nature12826

Download Citation

Cellular immunity Comparative genomics

Development Molecular evolution

Received: 01 November 2013  
Accepted: 01 November 2013  
Published online: 08 January 2014  
Corrigendum: 24 September 2014

Editorial Summary

### First genome of a cartilaginous fish

The elephant shark (*Callorhynchus milii*) is a cartilaginous fish native to the temperate waters off southern Australia and New...

show more

Associated Content

Nature | Brief Communications Arising from

**ARTICLE** OPEN

## Elephant shark genome provides unique insights into gnathostome evolution

Byrappa Venkatesh<sup>1</sup>, Alison P. Lee<sup>1</sup>, ... Wesley C. Warren<sup>1</sup>

The emergence of jawed vertebrates (gnathostomes) from jawless vertebrates was accompanied by major morphological and physiological innovations, such as the development of jaws and the evolution of the vertebrate skull. However, the evolutionary relationships among jawed vertebrates remain controversial. The elephant shark (*Callorhynchus milii*), the first fish-like genome to be sequenced, is a cartilaginous fish that diverged from the lineage leading to jawed vertebrates before the divergence of jawed vertebrates. We report the whole genome sequence of a cartilaginous fish, the elephant shark (*Callorhynchus milii*). We find that the *C. milii* genome is the slowest evolving of all known vertebrates, including the 'living fossil' coelacanth, and features extensive repetitive content and a high density of transposable elements. We find that the elephant shark genome is highly similar to that of jawed vertebrates, including the presence of a large number of cartilage genes. Our results indicate that cartilaginous fishes represent a distinct lineage of vertebrates, and that the divergence of cartilaginous fishes from jawed vertebrates is supported by the presence of a large number of cartilage genes. We also find that the elephant shark genome is highly similar to that of jawed vertebrates, including the presence of a large number of cartilage genes. We also find that the elephant shark genome is highly similar to that of jawed vertebrates, including the presence of a large number of cartilage genes.

Google Scholar

crispr cas9

Articles

About 48,600 results (0.04 sec)

My profile My library

Any time

Since 2018

Since 2017

Since 2014

Custom range...

Sort by relevance

Sort by date

Include patents

include citations

Create alert

Genome-scale CRISPR-Cas9 knockout screening in human cells [HTML] nih.gov

[View PDF](#) Add to Library

Double nicking by RNA-guided CRISPR-Cas9 enables targeted genome editing [HTML] sciencedirect.com

Genome engineering using the CRISPR-Cas9 system [HTML] nih.gov

Development and applications of CRISPR-Cas9 for genome engineering [HTML] sciencedirect.com

**Genome-Scale CRISPR-Cas9 Knockout Screening in Human Cells**

Q. Shalem, NE Sanjana, E Hartman, X Shi, ... 2014 - *Science*

Abstract Targeted nucleases are powerful tools for mediating genome alteration with high precision. The RNA-guided Cas9 nuclease from the microbial clustered regularly interspaced short palindromic repeats (CRISPR) adaptive immune system can be used to...

Cited by 1896 Related articles

# How does it work with the library?

1

Sync Knowledgebase

Alma, Serials Solutions,  
EBSCO, and more.

Automatic Updates

2

Single Sign-On (SSO)

Shibboleth, CAS,  
OAuth, LDAP, SAML

Enables authentication across  
multiple discovery services and  
publisher websites.

3

EZProxy Integration

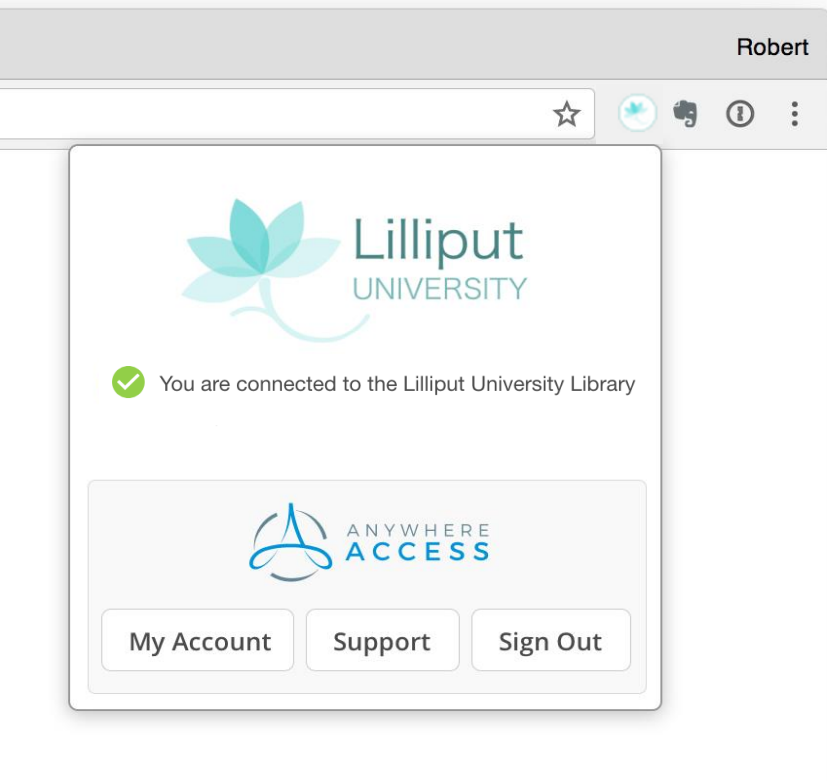
Other IP Authentication  
options available

COUNTER-compliant




# Researcher User Experience

## Browser Extension




Robert

☆ 🔍 🗨️ ⓘ ⋮

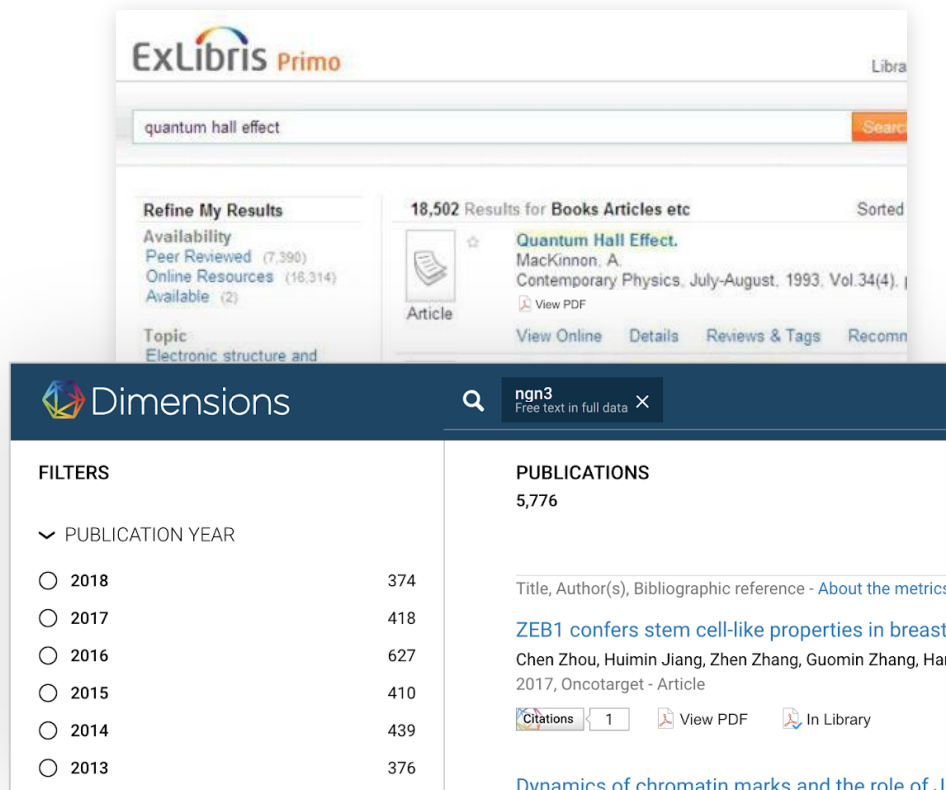
 **Lilliput**  
UNIVERSITY

✔️ You are connected to the Lilliput University Library

 ANYWHERE  
ACCESS

My Account Support Sign Out

## Native & Widget-based Integrations



**ExLibris Primo** Libra


quantum hall effect Search

**Refine My Results**

Availability  
Peer Reviewed (7,390)  
Online Resources (16,314)  
Available (2)


Topic  
Electronic structure and

**18,502 Results for Books Articles etc** Sorted

 ☆ **Quantum Hall Effect.**  
MacKinnon, A.  
Contemporary Physics, July-August, 1993, Vol. 34(4).  
[View PDF](#)

Article View Online Details Reviews & Tags Recomm

---

 **Dimensions** ngn3 Free text in full data ×

**FILTERS**




▼ PUBLICATION YEAR

<input type="radio"/> 2018	374
<input type="radio"/> 2017	418
<input type="radio"/> 2016	627
<input type="radio"/> 2015	410
<input type="radio"/> 2014	439
<input type="radio"/> 2013	376

**PUBLICATIONS**  
5,776

Title, Author(s), Bibliographic reference - [About the metrics](#)

[ZEB1 confers stem cell-like properties in breast](#)  
Chen Zhou, Huimin Jiang, Zhen Zhang, Guomin Zhang, Har  
2017, Oncotarget - Article

 Citations   View PDF  In Library

[Dynamics of chromatin marks and the role of](#)

# **Integrated Doc Delivery Options**

# Unmediated Document Delivery

AnywhereAccess

Download PDF Add To Library References 60

SPRINGER NATURE

range and to drive the formation of a quinol, which must traverse the confines of the LH1 ring encircling the RC. We identified the LH1-RC complex from *Rhodospirillum rubrum* as a suitable target for a high-resolution structural study because it possesses unique architectural and spectroscopic features. Notably, the RC in the *R. rubrum* photosynthetic complex yielded the first reported structure of a membrane protein complex<sup>10</sup>, but electron microscopy has provided only low-resolution structures for the complete LH1-RC complex<sup>11,12</sup>. This complex accommodates BChl *b* rather than BChl *a*, and absorbs in the infrared at 1,015 nm, making it one of the most redshifted photosynthetic complexes described to date and one proposed as the basis for re-engineered photosynthesis<sup>13</sup>. There is currently no known structural basis for this unusual *in vivo* absorption, which represents one of the largest redshifts observed in a photosynthetic pigment-protein complex, 220 nm from the 795 nm absorption maximum of BChl *b* in methanol. This property could be related to the composition of the *R. rubrum* LH1 complex, which contains  $\alpha$ -,  $\beta$ - and  $\gamma$ -polypeptides, but the position and function of the  $\gamma$ -subunit within the LH1

The absorption maximum at 1,015 nm is ascribed to the Q<sub>y</sub> band of BChl *b* in the LH1 complex, which is slightly blueshifted to 1,008 nm after detergent solubilization and purification. Following vitrification of monodisperse complexes, we recorded 6,672 cryo-EM movies, from which 267,726 particles were picked manually for reference-free 2D classification. Further processing yielded a final resolution of 2.9 Å, enabling compilation of a colour-coded electron-density map (Fig. 1a-c) that reveals the detailed structural architecture of this LH1-RC complex and the relative locations of all pigments, cofactors and subunits. The dimensions of the LH1-RC are shown in Fig. 1c, d. The height of the core complex from the top of the periplasmic cytochrome to the bottom of the H subunit on the cytoplasmic side is 128.9 Å (Fig. 1a, d), and the diameters of this structure, which is slightly elliptical in projection, are 120.2 and 124.5 Å (Fig. 1c). The complex has a molecular weight of 414 kDa.

The RC in the cryo-EM map is similar to the one in the X-ray structure (for example, PDB: 1PFC<sup>14</sup>). The RC consists of H, M, L and cytochrome (C) subunits. Structural differences, indicated by

Department of Molecular Biology and Biotechnology, University of Sheffield, Sheffield, UK; Rutherford Appleton Laboratory, Diamond Light Source, Didcot, UK; <sup>1</sup>Nuffield Centre for Structural Molecular Biology, University of Leeds, Leeds, UK; <sup>2</sup>email: j.sage@sheffield.ac.uk; s.j.sage@leeds.ac.uk

12 APRIL 2018 | VOL 556 | NATURE | 203

© 2018 Macmillan Publishers Limited, part of Springer Nature. All rights reserved.

**Fig. 1** Cryo-EM reconstruction of the LH1-RC complex. (a) 3D reconstruction of the LH1-RC complex. (b) 2D class averages of the LH1-RC complex. (c) Dimensions of the LH1-RC complex. (d) Height of the core complex from the top of the periplasmic cytochrome to the bottom of the H subunit on the cytoplasmic side.

2 / 20

Lilliput UNIVERSITY

You are previewing an article from Nature. Full text access is available for instant viewing through Lilliput University. The following delivery options are available:

- Rent for 48 hours  
Printing and saving restrictions apply
- Buy Cloud Access  
Printing and saving restrictions apply
- Buy PDF

# Researcher User Experience

- Free first page previews
- Instant delivery
- Purchase billed to library



You are previewing an article from Nature. Full text access is available for instant viewing through Lilliput University. The following delivery options are available:

**Rent for 48 hours**

Printing and saving restrictions apply



**Buy Cloud Access**

Printing and saving restrictions apply



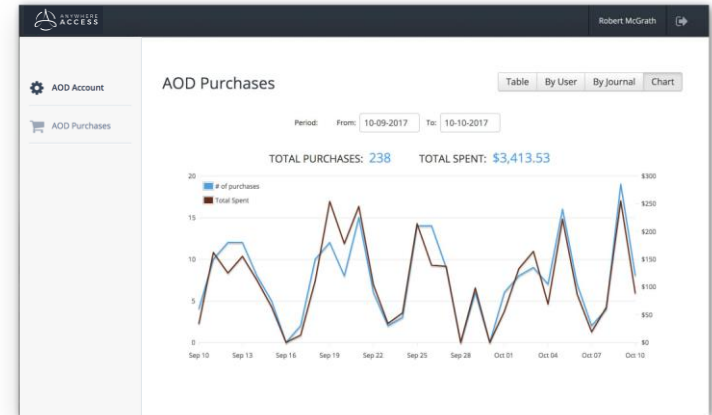
**Buy PDF**



# **Managing Budgets with Unmediated Purchasing**

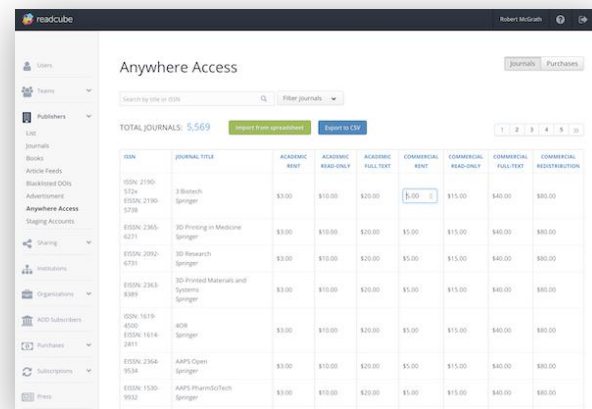
# Librarian Dashboard

- Integrated holdings prevents purchasing subscribed content
- Ability to enable by publisher, journal
- Ability to enable by tiers of access (PDF, Rental, Read-only versions)
- Integrates with existing link resolver when not available (e.g. ILL workflow)



# Publisher Dashboard

- Set separate prices for academic and commercial purchasers
- Multiple pricing tiers available, including: rent, read-only, full text
- Ability to trial on a subset of journals



The screenshot shows the 'Anywhere Access' dashboard in readcube. It features a search bar, a 'TOTAL JOURNALS: 5,569' indicator, and a table with columns for journal details and pricing tiers. The pricing tiers include Academic Rent, Academic Read-Only, Academic Full Text, Commercial Rent, Commercial Read-Only, Commercial Full Text, and Commercial Redistribution. A 'Rent' value of \$5.00 is highlighted in a blue box.

IDN	JOURNAL TITLE	ACADEMIC RENT	ACADEMIC READ-ONLY	ACADEMIC FULL TEXT	COMMERCIAL RENT	COMMERCIAL READ-ONLY	COMMERCIAL FULL TEXT	COMMERCIAL REDISTRIBUTION
ISSN: 2190-1524 EISSN: 2190-5738	3 Biotech Springer	\$3.00	\$10.00	\$20.00	\$5.00	\$15.00	\$40.00	\$80.00
EISSN: 2385-6271	3D Printing in Medicine Springer	\$3.00	\$10.00	\$20.00	\$5.00	\$15.00	\$40.00	\$80.00
EISSN: 2092-6731	3D Research Springer	\$3.00	\$10.00	\$20.00	\$5.00	\$15.00	\$40.00	\$80.00
EISSN: 2383-6389	3D-Printed Materials and Systems Springer	\$3.00	\$10.00	\$20.00	\$5.00	\$15.00	\$40.00	\$80.00
ISSN: 1619-4500 EISSN: 1614-2811	4OR Springer	\$3.00	\$10.00	\$20.00	\$5.00	\$15.00	\$40.00	\$80.00
EISSN: 2364-9534	AAPS Open Springer	\$3.00	\$10.00	\$20.00	\$5.00	\$15.00	\$40.00	\$80.00
EISSN: 1530-9932	AAPS PharmSciTech Springer	\$3.00	\$10.00	\$20.00	\$5.00	\$15.00	\$40.00	\$80.00



# Benefits to Ecosystem

## For Researchers

- Fastest way to access subscribed and on-demand literature
- Works on and off campus.
- “Faster than SciHub”

## For Libraries

- Delight patrons with 1-click access.
- Discourage use of “rogue” sites.
- Improved usage analytics for collections management.

## For Publishers

- COUNTER-compliant.
- Document Delivery module supports new business models.
- Instant unmediated access dissuades researchers from sourcing from “rogue” sites.



ANYWHERE  
**ACCESS**

# Thank You

[anywhereaccess.com](http://anywhereaccess.com)

