

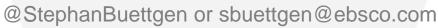
Tell the Story.

Categorize. Measure. Analyze.

Stephan Buettgen

VP Analytic Products

EAHIL 2016 - Seville - July 7th















What impact has our research had in the past 12 months?





How do we help our early career researchers secure grants.









How do we increase the visibility of our research?





How do we assess and evaluate our research?









What clinical impact does our research have?





Our Approach

Categorize

- Define the unique properties to measure research by output
- Group research outputs your way

Visualize

See impact at a glance

Analyze

Discover your research stories





#1



The universe of metrics is expanding











Benefits of Altmetrics

Broadness

Measure the broader impact of research—beyond science

Diversity

 Measure the impact of scholarly products beyond just the journal article.

Speed

Outputs can be measured immediately.

Openness

Obtaining and viewing the data is easier.





#2



The pace of scholarly communication is speeding up





Journal citations are the traditional form of

Scholarly Measure

Elastic ice shells of synchronous moons: Implications for cracks on Europa and non-synchronous rotation of Titan

Peter M. Goldreich a,b, Jonathan L. Mitchell o,b

A number of synchronous moons are thought to harbor water oceans beneath their outer ice shells. A subsurface ocean frictionally decouples the shell from the interior. This has led to proposals that a weak tidal or atmospheric torque might cause the shell to rotate differentially with respect to the synchronously rotating interior. Applications along these lines have been made to Europa and Titan. However, the shell is coupled to the ocean by an elastic torque. As a result of centrifugal and tidal forces, the ocean would assume an ellipsoidal shape with its long axis aligned toward the parent planet. Any displacement of the shell away from its equilibrium position would induce strains thereby increasing its elastic energy and giving rise to an elastic restoring torque. In the investigation reported on here, the elastic torque is compared with the tidal torque acting on Europa and the atmospheric torque acting on Tran-

References

Anderson, J. D., Schubert, G., Jacobson, R. A., Lau, E. L., Moore, W. B., Sjogren, W. L., Sep. 1998. Europa's Differentiated Internal Structure: In-

essier, P. E., Greenberg, R., Hoppa, G., Helfenstein, P., McEwen, A., Pappalardo, R., Tufts, R., Ockert-Bell, M., Sullivan, R., Greeley, R., Belton, M. J. S., Denk, T., Clark, B. E., Burns, J., Veverka, J., Jan. 1998. Evidence conchronous rotation of Europa, Nature 391, 368.

Ghatak, A., Mahadevan, L., Nov. 2003. Crack Street: The Cycloidal Wake of a Cylinder Tearing through a Thin Sheet. Physical Review Letters 91 (21),

Greeley, R., Sullivan, R., Coon, M. D., Geissler, P. E., Tufts, B. R., Head, J. W., Pappalardo, R. T., Moore, J. M., Sep. 1998. Terrestrial Sea Ice Mor-

reenberg, R., Hoppa, G. V., Tufts, B. R., Geissler, P., Riley, J., Kadel, S. Oct. 1999. Chaos on Europa. Icarus 141, 263-286.

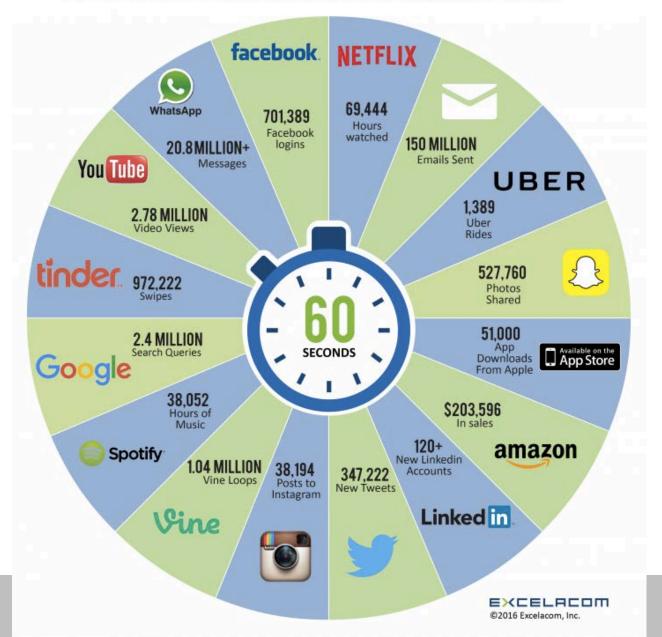
Greenberg, R., Weidenschilling, S. J., May 1984. How fast do Galilean satellites

Europa's Differentiated Internal Structure: Inferences from Four **Galileo Encounters** Journal Impact Factor 3.161 May 19, Classe And St. Combo and St. Stool of Taxo hour W. Wood I'V and Walter's T. Physiology



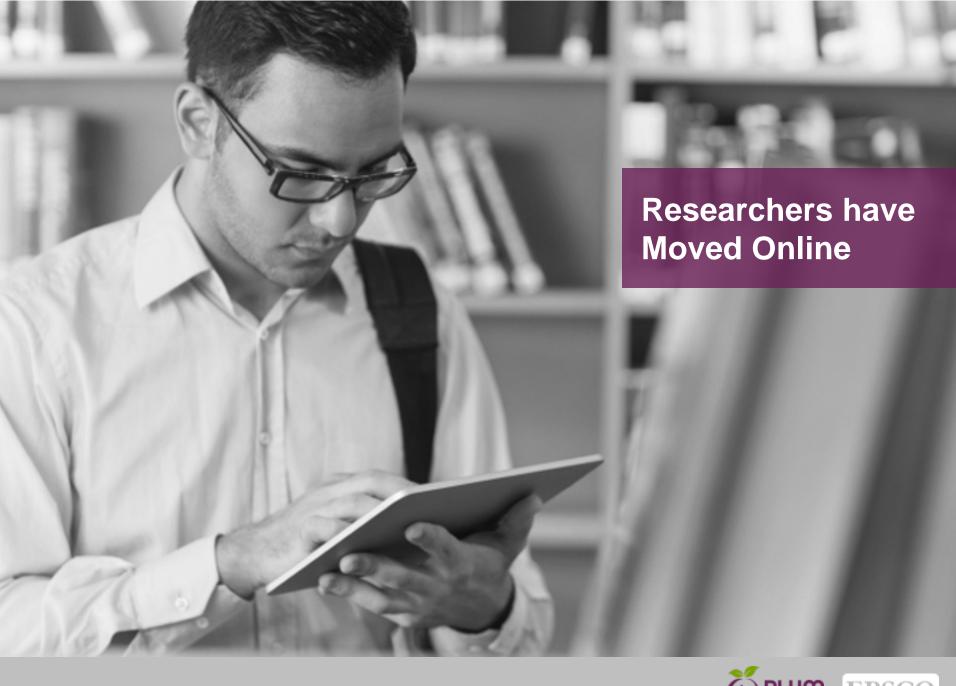


2016 What happens in an INTERNET MINUTE?













Examples: Scholarly Data Exhaust





















Google+























Measuring data exhaust to tell the story...

TECHNOLOGY HAS FINALLY CAUGHT UP

Make visible what was invisible

Make measurable what was immeasurable

#3



Compare like with like





PLUMX Metrics Categories



USAGE

(clicks, downloads, views, library holdings, video plays)



CAPTURES

(bookmarks, code forks, favorites, readers, watchers)



MENTIONS

(blog posts, comments, reviews, Wikipedia links)



SOCIAL MEDIA

(+1s, likes, shares, tweets)



CITATIONS

(citation indexes, patent citations, clinical citations)





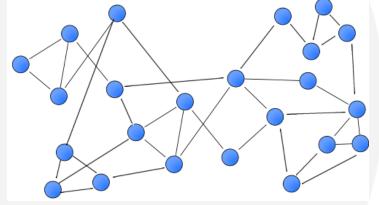
PlumX: Built for Big Data

 Built for Scale – Our goal is to track all the world's researchers, all of their output, and metrics for each.

>18 Million Researchers Worldwide

>120 Million Scholarly Articles

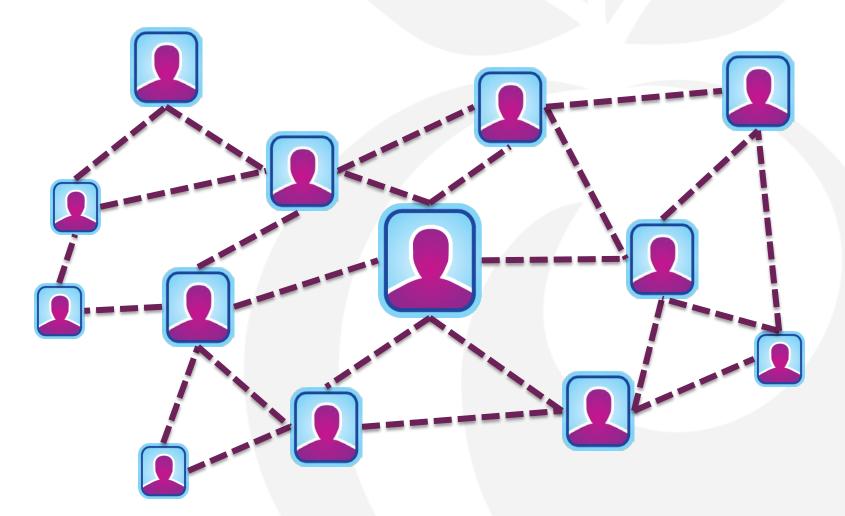
Map artifacts → people → groups







People not Papers







Over 300 PlumX Customers Worldwide

Caltech











THE UNIVERSITY OF WESTERN AUSTRALIA















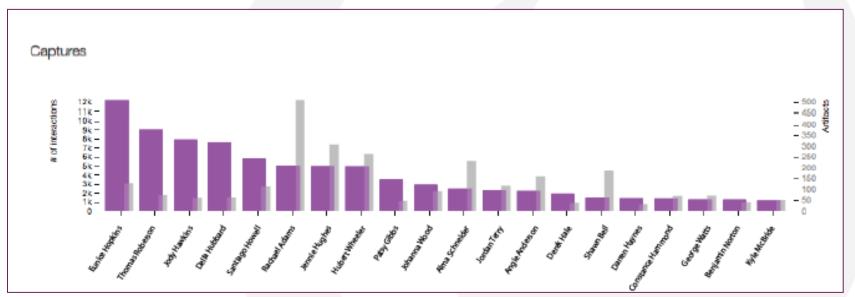






















Announcing: Clinical Citations







Clinical Citations

- Showcase your researchers and institution
- Help your researchers
 - Get credit for their work
 - Tell their stories for funding
- Understand the value of clinical and translational research





Clinical Research & Citations

"

...clinical medicine draws heavily on basic science, but not vice versa. The result is that basic medicine is cited three to five times more than clinical medicine, and this is reflected in journal impact factors."

BMJ. 1997 Feb 15; 314(7079): 498-502.

PMCID: PMC2126010

Why the impact factor of journals should not be used for evaluating research.

P.O. Seglen





Researchers have difficulty getting funding.









Early-career researchers opt out of translational medicine.



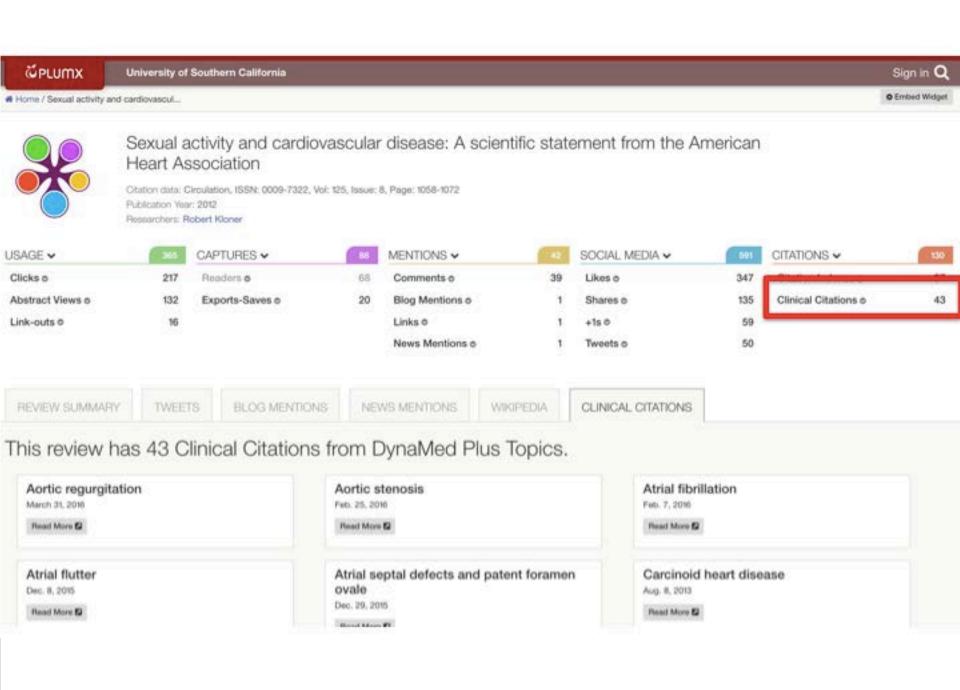


Hospitals cannot showcase their talents.



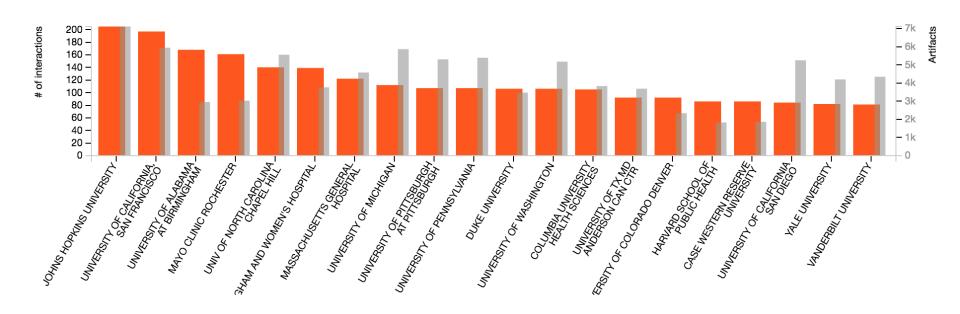






See Your Clinical Impact Compared to Peer Institutions

Citations







Clinical Citations

Clinical Alerting Services

Clinical Guidelines

Systematic Reviews

Clinical Trials





DynaMed Plus Topics

- Clinical reference tool
- Designed for point-of-care
- Content: Extensive network of clinical experts
 - Review 500 journals and 120 guideline organizations
 - select the best and most appropriate evidence
 - confirm the clinical applicability of content
 - peer-review topics





Examples of guideline organizations include:

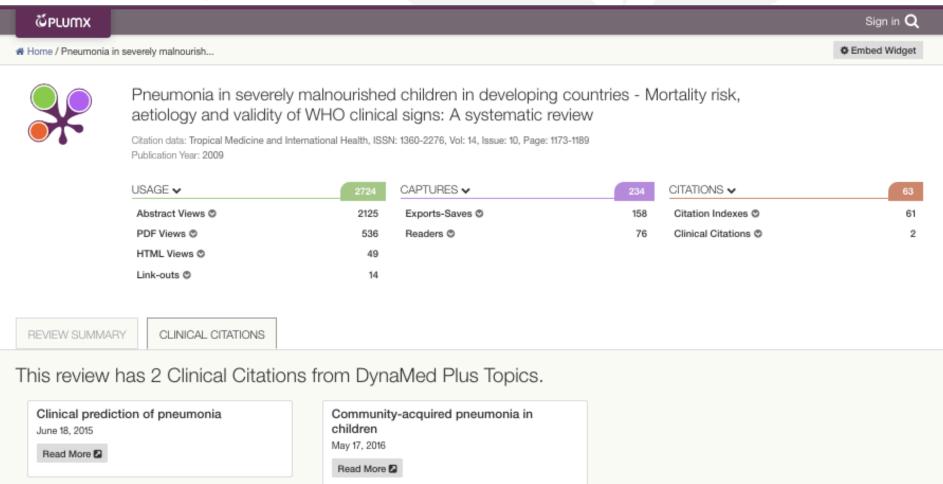
- American Academy of Neurology (AAN)
- American Academy of Pediatrics (AAP)
- American Academy of Clinical Endocrinologists (AACE)
- American Association for the Study of Liver Diseases (AASLD)
- American College of Cardiology (ACC)
- American College of Chest Physicians (ACCP)
- American College of Obstetricians and Gynecologists (ACOG)
- American College of Physicians (ACP)
- American Diabetes Association (ADA)
- British Thoracic Society (BTS)
- Canadian Cardiovascular Society (CCS)
- Canadian Medical Association (CMA)
- Canadian Task Force of Preventive Health (CTFPHC)
- Centers for Disease Control and Prevention (CDC)

- European Respiratory Society (ERS)
- European Society for Medical Oncology (ESMO)
- European Society of Cardiology (ESC)
- Global Initiative for Chronic Obstructive Lung Disease (GOLD)
- Infectious Diseases Society of America (IDSA)
- International Society on Thrombosis and Haemostasis (ISTH)
- National Comprehensive Cancer Network (NCCN)
- National Health & Medical Research Council (NHMRC) [Australian guidelines]
- National Institute for Health and Care Excellence (NICE)
- Pan American Health Organization (PAHO)
- Royal College of Physicians (RCP)
- Scottish Intercollegiate Guidelines Network (SIGN)
- World Gastroenterology Organisation (WGO)
- World Health Organization (WHO)





Showing when research makes its way into clinical practice







#6



Online users expect metrics















WIRED



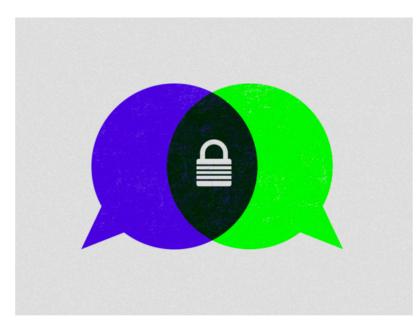








ANDY GREENBERG SECURITY 04.26.16 9:00 AM TWO TIPS TO KEEP YOUR PHONE'S ENCRYPTED MESSAGES **ENCRYPTED**



☼ THEN DNE/WIRED

END-TO-END ENCRYPTION BY default is quickly becoming the new standard for any communications app that claims to care about the privacy of those who use it. But not all encryption is created equal. And default doesn't always mean default.



LATEST NEWS



WIRED Shows Up on Silicon Valley, Creates a Meta-Paradox 17 HOURS



The Tokyo Olympics Gets a New, Kabuki-Inspired Logo 18 HOURS

The Plum Print

- Visualizes scholarly engagement
- Includes 5 categories of metrics
- Designed to communicate engagement without a score



©PLUMX

Usage

Clicks: 814

Abstract Views: 960 HTML Views: 192 Link-outs: 131

Captures

Exports-Saves: 72

Readers: 86

Mentions

Blog Mentions: 3 Comments: 8

Links: 1

Social Media

Shares: 23 Likes: 12 +1s: 9 Score: 4 Tweets: 114

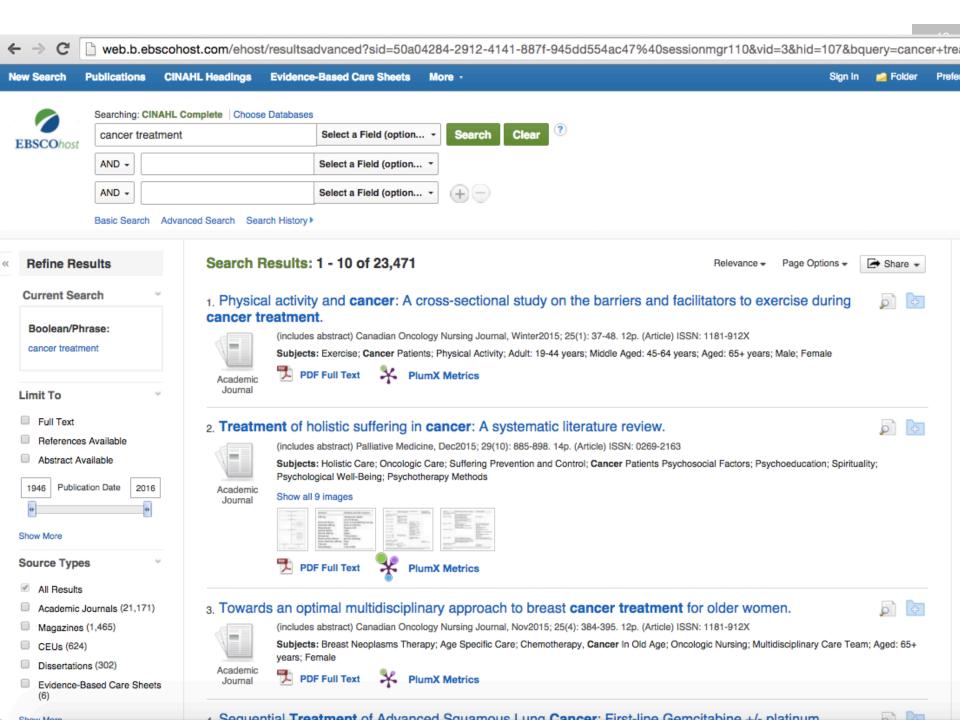
Citations

Clinical Citations: 4 Citations: 298

see details







USC Health Sciences Profiles

A Researcher Networking Tool



Powered by SC CTSI

Q

>> Find More Research Resources

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Use Profiles Data for Your Website

Help

e.g. Smith or HIV

Sign in to edit your profile (add interests, mentoring, photo, etc.)

Senta K. Georgia, PhD



Title Assistant Professor of Pediatrics

School Keck School of Medicine of USC

Department Pediatrics

Address CHL Mail Stop 35

Off Campus

Los Angeles California 90089

Phone +1 323 361 6003

Email sgeorgia@chla.usc.edu

Senta's Networks

Related Concepts

Derived automatically from this person's publications.

Pancreas

Insulin Resistance

Diabetes Mellitus, Experimental

Insulin-Secreting Cells

Stem Cells

See all (111) concept(s)

Overview

Websites

Featured Videos

In The News

Publications

 Martín MG, Lindberg I, Solorzano-Vargas RS, Wang J, Avitzur Y, Bandsma R, Sokollik C, Lawreng LA, Chen Z, Egritas O, Dalgic B, Albornez V, de Ridder L, Hulst J, Gok F, Aydogan A, Al-Hussain Yourshaw M, Wu SV, Cortina G, Stanford S, Georgia S. Congenital proprotein convertase 1/3 del causes malabsorptive diarrhea and other endocrinopathies in a pediatric cohort. Gastroenterolog 145(1):138-48...

View in: PubMed RelumX Metrics

Georgia S, Kanji M, Bhushan A. DNMT1 represses p53 to maintain progenitor cell survival during pancreatic organogenesis. Genes Dev. 2013 Feb 15; 27(4):372-7...



Plum Prints help showcase researchers

©PLUMX

Autism Spectrum Disorders: Genomes to Outcomes

Researchers



Artifact Summary

Article: 22

Media: 1

Other: 1

Maudio: 1

Recent Artifacts

Whole-genome sequencing of quartet families with autism spectrum disorder

* "Autisms" a More Appropriate Term than "Autism," Geneticists Say

LARGEST-EVER AUTISM GENOME STUDY FINDS MOST SIBLINGS HAVE DIFFERENT AUTISM-RISK GENES

More Differences Than Similarities Are Found in Autistic Siblings

Autistic siblings may not have same genetic mutations

see details









Use Altmetrics to show the ROI of your grants





Autism Speaks uses PlumX to track

Grants:

PlumX tracks all historic

and active grants

Grants:

- ATN 2011- KKI
- · Identifying Genetic Variants on the Y Chromosome of Males with Autism

Video (55)

- · Genome-wide examination of DNA methylation in autism
- · ATN 2011- U of Pittsburgh

Article (1100)

· Identification of Autism Candidate Genes on the X-Chromosome from Copy Number Variants Ide

Blog (55)

Book (12)

Show All

Presentation (17)

All (1363)

Media (3)

Auracts:

PlumX gathers metrics from over 40 types of research

Newsletteroutput.

tract (4) Reference (3)

Audio (3) Thesis / Dissertation (3) Poster (2) Report (2) Blog Post (2) Other (2) Web Page (2) Paper (2)

Press Release (6)

Web resource (20

Interview (5)

Conference Paper (21)

Letter (9)

Project (1) Clinical Trial (1)

want to monitor

• ATN 2011- KKI

Identifying Genetic Variants on the Y Chromosome of Males with Autism

· Genome-wide examination of DNA methylation in autisn

Book Chapter (16)

ATN 2011- U of Pittsburgh

List of a!

Speaks Grants

EPLUMX

Autism Speaks



Pharmacological Treatment of Maturation with IGF-1

Mouse over each grant for a quick view of the output



Synaptic Function in Mouse Mod



A system-level approach for discovery on variation in ASD



The Effects of Npas4 and Sema4D on Inhibitory Synapse Formation



Elucidation and rescue of amygdala abnormalities in the Fmr1 mutant mouse model of Fragile X Syndrome



Treating autistic-like traits in mouse models of Fragile X Syndrome



Deciphering the function and regulation of AUTS2



Advanced Parental Age and Autism: The role of aneuploidy and uniparental disomy in ASD pathogenesis



Effects of Oxytocin Receptor Agonists in Mouse Models of Autism Spectrum Disorder Phenotypes

Groups

FBSCO Sales Demo



Elucidation and rescue of amygdala abnormalities in the Fmr1 mutant mouse model of Fragile X Syndrome

Artifacts Summary:

Article: 6

S Video: 1

Recent Artifacts:

Deficient tonic GABAergic conductance and synaptic balance in the fragile X syndrome amygdala.

Developmental changes in expression of inhibitory neuronal proteins in the Fragile X Syndrome mouse basolateral amygdala.

Homeostatic responses fail to correct defective amygdala inhibitory circuit maturation in fragile X syndrome.

Brain_Biology-ARR.mov

The GABA(A) receptor agonist THIP ameliorates specific behavioral deficits in the mouse model of fragile X syndrome.



Track Grantees





Autism Speaks

Search results for ashwood



Paul **Ashwood**



Defining the Underlying Biology of Gastrointestinal Dysfunction in Autism University of California, Davis



Cytokine dysregulation in autism spectrum disorders (ASD): possible role of the environment.

Article

Author(s): Goines PE, Ashwood P

Neurotoxicol Teratol, ISSN: 0892-0362, 2013, Vol: 36, DOI: 10.1016/j.ntt.2012.07.006, 67-81 pages.



The role of immune dysfunction in the pathophysiology of autism.

Article

Author(s): Onore C, Careaga M, Ashwood P

Brain Behav Immun, ISSN: 0889-1591, 2012, Vol. 26, Issue: 3, DOI: 10.1016/j.bbi.2011.08.007, 383-92 pages.



Stereotypies and hyperactivity in rhesus monkeys exposed to IgG from mothers of children with autism.

Article

Author(s): Martin LA, **Ashwood** P, Braunschweig D, Cabanlit M, Van de Water J, Amaral DG Brain Behav Immun, ISSN: 0889-1591, 2008, Vol. 22, Issue: 6, DOI: 10.1016/j.bbi.2007.12.007, 806-16 pages.



A pilot randomized controlled trial of omega-3 fatty acids for autism

Summary of Grantees



Paul Ashwana

Researcher from:

By Geography / USA / Calif By Institution / University of By Portfolio / Biology / 7567 Looking at one grantee's output, even for his research published in 2013 and 2014, PlumX metrics are available.

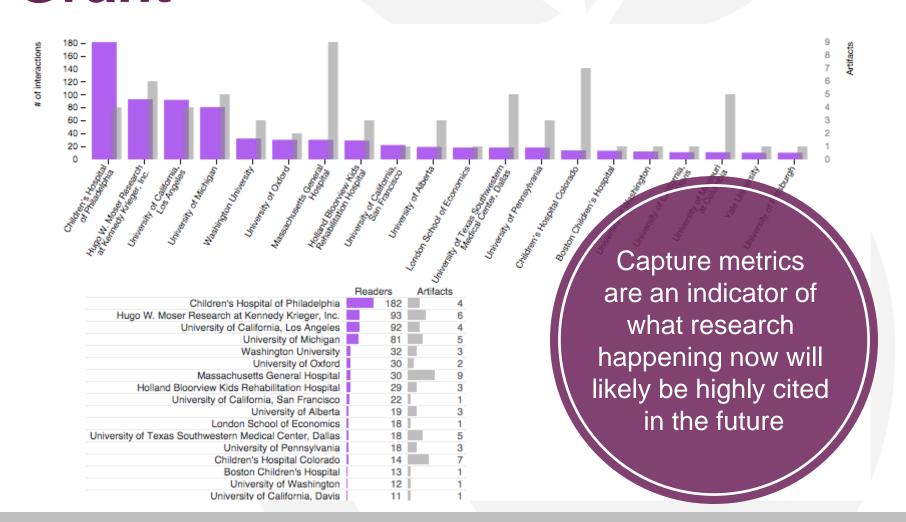
Researcher from:

Autism Speaks analyzes their grants by the following categories:

- By geography
 By institution
 By their major areas of funding
- By they type of grant

			_						
Year 🔻	Title	9	Type	Captures	Citations	Social Media 🔷	Mentions	Usage 🔷	
				+	+	+	+	+	
2014	Gastrointestinal problems in children with autism, developmental delays or typical development.		Article	10		37	9	385	
2013	$\label{thm:modulate_policy} \mbox{Microbiota modulate behavioral and physiological abnormalities associated with neurodevelopmental disorders.}$		Article	340	17	143	36	308	
2013	Myeloid dendritic cells frequencies are increased in children with autism spectrum disorder and associated with amygdala volume and repetitive behaviors.		Article	5	4	12	8	233	
2013	Antibodies against food antigens in patients with autistic spectrum disorders.		Article	12	2	181	21	10	
2013	Maternal immune activation causes age- and region-specific changes in brain cytokines in offspring throughout development.		Article	23	18	8	2	199	
2013	Cannabinoid receptor type 2, but not type 1, is up-regulated in peripheral blood mononuclear cells of children affected by autistic disorders.		Article	4	9	63	16	1154	
2013	Cytokine dysregulation in autism spectrum disorders (ASD): possible role of the environment.		Article	18	15	1		234	
2013	'Friendly'bacteria treat autism-like symptoms in mice SFARI.org Simons Foundation Autism Research Initiative		Article			473	131	39	
2013	Zonulin as prehaptoglobin2 regulates lung permeability and activates the complement system.		Article	6	4			15	

Autism Speaks – Captures by Grant







#8



Finding Funding Opportunities can leverage metrics





Home / Barbara Friedland



Barbara Friedland

Associate II

Staff

Researcher from:

HIV AND AIDS

Artifact Summary

17

Article

Article (17)

Export Data

Filter...

Analytics

Impact by Type: All



			All						
Year	▼ Title	¢	Captures	Citations	Social Media	Mentions	Usage		
			+	+	+	+	+		
2015	Hormonal Contraception and the Risk of HIV Acquisition: An Individual Participant Data Meta-analysis		26	12	5	1	9699		
2015	Using a 2-Stage Strategy with Respondent-Driven Sampling to Recruit a Hard-to-Reach Population for a Placebo Microbicide Gel Clinical Trial in Nellore, Andhra Pradesh (India)		32	2	13	4	96		
2015	To tell or not to tell: male partner engagement in a Phase 3 microbicide efficacy trial in South Africa		1		2		302		
2015	Baseline Predictors of High Adherence to a Coitally Dependent Microbicide Gel Based on an Objective Marke of Use: Findings from the Carraguard Phase 3 Trial.	r			1				
2014	An interdisciplinary framework for measuring and supporting adherence in HIV prevention trials of ARV-based vaginal rings		6	3			161		

EPLUMX



Funding Opportunities

Category

Filter

■ Education

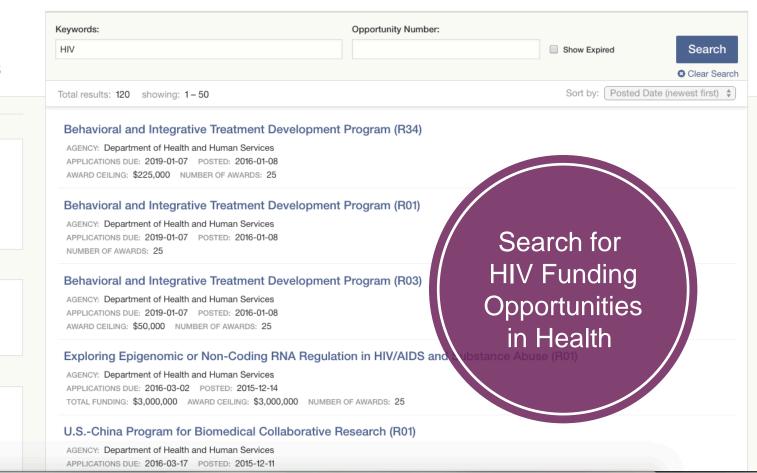
- Environment
- Liviloiiiiiciii
- Food and Nutrition
- Health
- Housing
- Income Security and Social Services

Agency

- Department of Defense
- Department of Health and Human Services
- Department of State

Eligibility

- City or township governments
- County governments
- Federally recognized Native American tribal governments
- Federally unrecognized Native American







PlumX Opportunity ID 359890-PAR-16-262

Funding Opportunity

Sustained Release of Antivirals for Treatment or Prevention of HIV (SRATP) (R01)

Apply for this opportunity: http://www.grants.gov/web/grants/view-opportunity.html?oppld=283880 2*







STATUS OPEN

KEY DETAILS

OPPORTUNITY DESCRIPTION

The purpose of this Funding Opportunity Announcement (FOA) is to encourage grant applications that address the long term goal and objective of developing sustained release strategies for HIV treatment or prevention. Applications may propose treatment or prevention products delivered using sustained release platforms (oral, injection, implant or direct delivery to HIV target mucosa) that will provide a minimum of 1 week for oral (treatment) or a minimum of once a month for all other drug delivery systems for prevention and treatment protection/efficacy.

FUNDER NAME National Institutes of Health

FUNDING CATEGORY

Research Grant

FUNDING DISCIPLINE

Health & Medicine

FUNDER TYPE

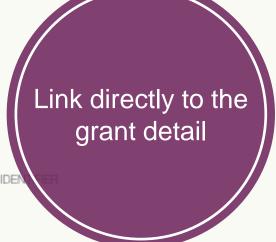
Government - U.S. Federal

LOCAL FUNDING OPPORTUNITY IDE

PAR-16-262

CFDA NUMBERS

93.242, 93.855, 93.856, 000000



CURRENCY		AWARD CEILING	AWARD FLOOR	TOTAL FUNDING	NUMBER OF AWARDS
USD		Not Applicable	Not Applicable	Not Applicable	25
POST DATE: 2016 06 17	ΔPPI I	CATIONS DUE DATE: 2010 01 04			

ELIGIBILITY

SUBMISSION INFO

Funding Opps Integrates with PlumX Dashboards

ॅPLUMX

Population Council Library



Barbara Friedland

Associate II

Staff

Researcher from: HIV AND AIDS

Funding opportunities

Behavioral and Integrative Treatment Development Program (R34)

Agency: Department of Health and Human Services
Applications Due: 2019-01-07 Posted: 2016-01-08
Award ceiling: \$225,000 Number of Awards: 25

Behavioral and Integrative Treatment Development Program (R01)

Agency: Department of Health and Human Services
Applications Due: 2019-01-07 Posted: 2016-01-08

Number of Awards: 25

Behavioral and Integrative Treatment Development Program (R03)

Agency: Department of Health and Human Services
Applications Due: 2019-01-07 Posted: 2016-01-08
Award ceiling: \$50,000 Number of Awards: 25

Exploring Epigenomic or Non-Coding RNA Regulation in HIV/AIDS and Substance Abuse (R01)

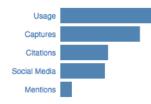
Agency: Department of Health and Human Services
Applications Due: 2016-03-02 Posted: 2015-12-14



CO

Where we're heading...

Impact by Type: All



Automatically
Targeting
Funding
Opportunities

Year 🔻	Title	\$	Captures	Citations	Social Media 🔷	Mentions	Usage
			+	+	+	+	+
2015	Hormonal Contraception and the Risk of HIV Acquisition: An Individual Participant Data Meta-analysis		26	12	5	1	9699
2015	Using a 2-Stage Strategy with Respondent-Driven Sampling to Recruit a Hard-to-Reach Population for a Placebo Microbicide Gel Clinical Trial in Nellore, Andhra Pradesh (India)		32	2	13	4	96
2015	To tell or not to tell: male partner engagement in a Phase 3 microbicide efficacy trial in South Africa		1		2		302
2015	Basslyn Prodicts while you have you will be something to be strong the Carraguard Hall.	K			1		
2014	An interdisciplinary framework for measuring and supporting adherence in HIV prevention trials of ARV-based vaginal rings		6	3			161
2014	Enrollment of adolescents aged 16-17 years old in microbicide trials: An evidence-based approach		43	3			249
2014	Making the cut: evidence-based lessons for improving the informed consent process for voluntary medical male circumcision in Swaziland and Zambia.	,	52				5879
2014	male circumcision in Swaziland and Zamhia. Engaging Mase Asidisa Shawarisa						
2013	Microbicide clinical trial adherence: Insights for introduction		38	23	124	1	98
	Last in Translation: According Effectiveness of Feature Group Questioning Techniques to Daviden Improved				· · · · · · · · · · · · · · · · · · ·		

#9



Feedback changes behavior



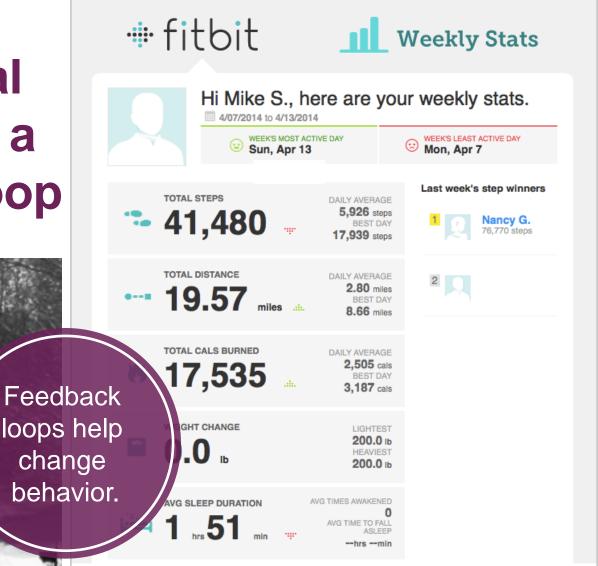


Metrics that update in real time provide a Feedback Loop

SPEED

LIMIT

YOUR SPEED







Tools to analyze your stars

- Established researchers
 - What are your key researchers doing well?
 - How do you measure that?
- Early career researchers
 - How are they successfully establishing themselves?
- Build archetypes by discipline
 - What types of outputs are important?
 - How should these be measured?





#10



Alternative Metrics are no longer Alternative





The horse is here to stay, but the automobile is only a novelty – a fad

- Henry Ford's lawyer Horace Rackham



62



Telling the Story of Research

- **#1** The universe of metrics is expanding.
- **#2** The pace of scholarly communication is speeding up.
- #3 Compare like with like.
- #4 To gather the whole story, you need to cast a wide net.
- #5 Metrics need to be diverse and inclusive.

- **#6** Online users expect metrics
- **#7** Use altmetrics to show the ROI of your awarded grants.
- #8 Online users expect metrics.
- **#9** Feedback changes behavior.
 - Alternative metrics are no longer alternative





There's a new way to tell the story



Answer the questions and tell the stories about your research



Find out more information at:

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