

Using this deck

Thank you for downloading the BenchSci presentation deck! Please delete or skip this slide and the following before starting your presentation, as they contain instructions intended for the presenter only.

This presentation is intended to provide the slides and resources necessary to share information about BenchSci with your colleagues. Following this presentation, we recommend sharing BenchSci with your colleagues by doing a real-world demo of the platform using your own proteins of interest!

If you have any feedback on this presentation, or any questions, do not hesitate to contact us at _____.

Happy Searching!



FAQs

Here are some FAQs you may receive during your presentation, along with answers:

1. How often is BenchSci's data updated?

Monthly

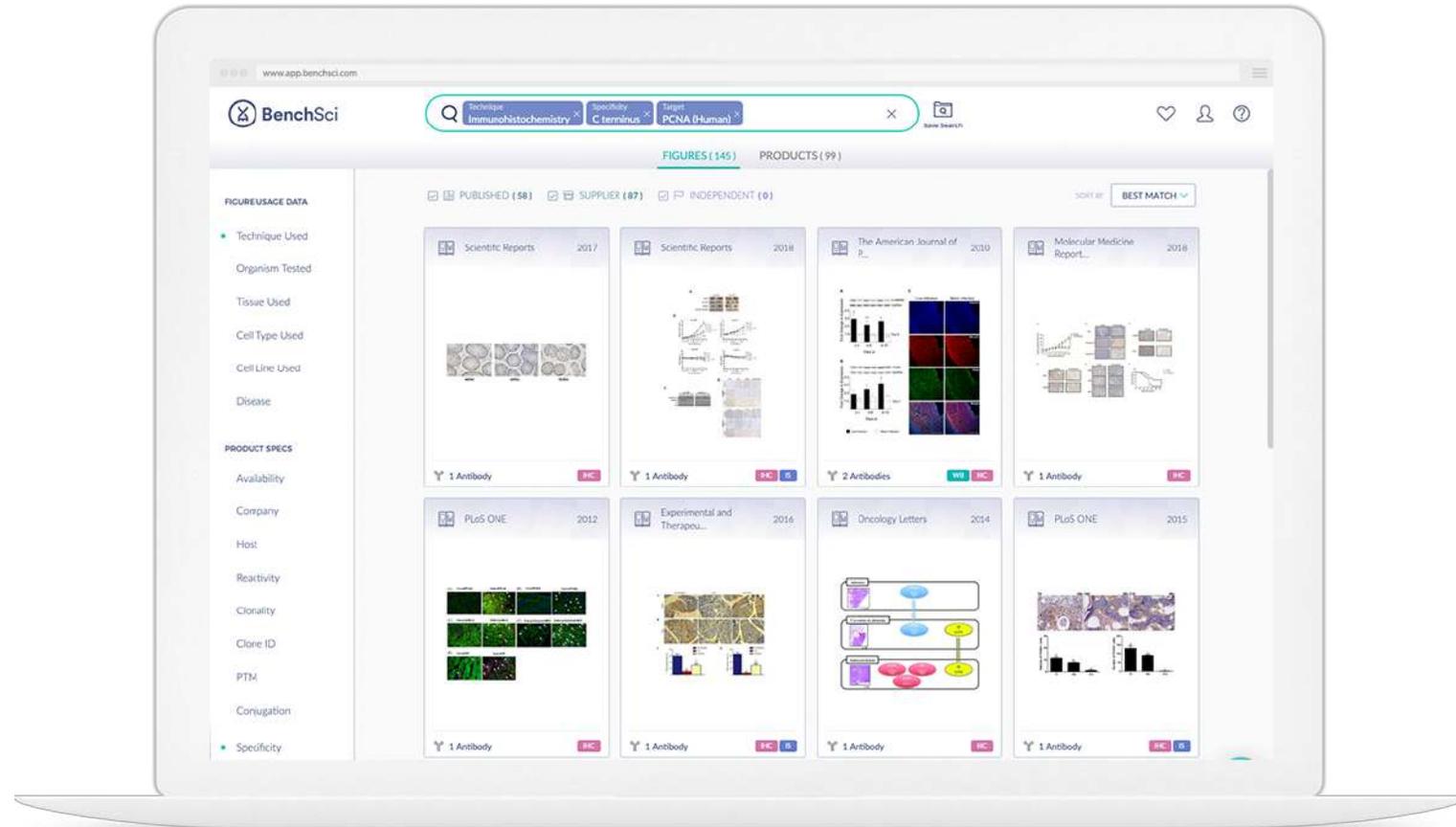
2. Does BenchSci favor one vendor over another?

No – BenchSci prides itself on being vendor-agnostic and lets the data speak for itself.

3. Do I need to download an app to use BenchSci?

No – BenchSci works in all major browsers (Chrome, IE, Safari, Firefox), though it works best on Chrome. You do not need to install anything

AI-Assisted Antibody Selection



Antibodies are one of the most important tools in biomedical research

\$3B

Global
annual spend

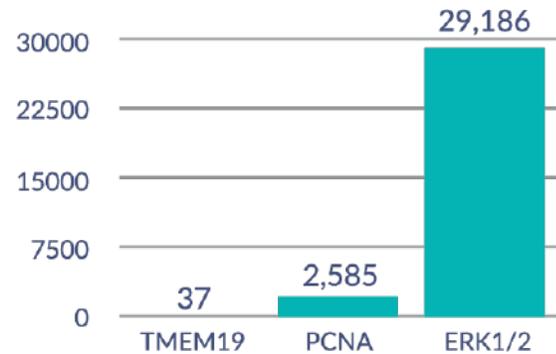


Used by 80%
of scientists



Used to detect and
quantify proteins, identify
cell types and organelles,
and much more

Focusing on the antibody crisis



The number of available antibodies per target can be in the **thousands**



Half of antibodies don't work as intended

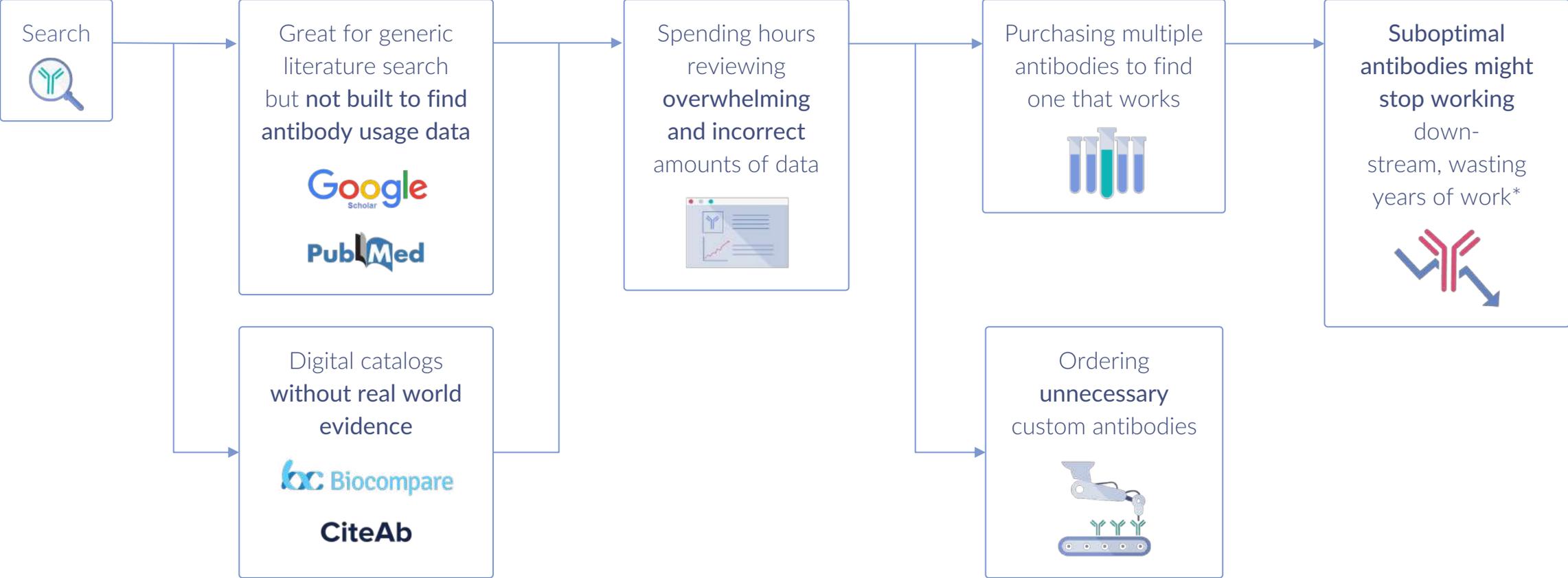
Berglund, 2008



Antibody usage data is **scattered**

- 300+ vendors
- Millions of publications
- 3rd party validators
- Internal data sources

Searching for an appropriate antibody can be a long, frustrating, and often inefficient process



* Nature 2015

Data to solve this problem is out there

But it's buried in millions of scientific publications and hundreds of digital sources

Neoplasia. 2005 Dec; 7(12): 1123-1132.

PMCID: PMC1501178

PMID: [16354595](#)

HLA-DR⁺ Immature Cells Exhibit Reduced Antigen-Presenting Cell Function But Respond to CD40 Stimulation^{1*}

Alberto Pinzon-Charry,¹ Tammy Maxwell,¹ Sandro Prato,¹ Colin Furnival,¹ Chris Schmidt,¹ and José Alejandro López¹

Cell Purification

Following isolation of peripheral blood mononuclear cells (PBMC) by density gradient centrifugation, cells were stained with the lineage mixture (CD3, CD14, CD19, CD20, and CD25) and HLA-DR (PE), CD11c (APC), and biotinylated CD123, followed by streptavidin selection. CD34 was added to the lineage marker (Lin) to exclude circulating

PLoS One. 2014; 9(7): e102876.

Published online 2014 Jul 16. doi: [10.1371/journal.pone.0102876](#)

Diets Rich in Saturated and Polyunsaturated Fatty Acids Induce Morphological Alterations in the Rat Ventral Prostate

Angélica Furrig, Pamela Campos-Silva, Paola Cariello Guedes Picarote Silva, Waldemir de Fátima, Francisco José Barcellos Sampaio, and Bianca Martins Gregório

PMCID: PMC4100933

PMID: [25029463](#)

Showing Publications 1 - 10 of 35. [Show All 35 Publications.](#)

Publications using NB100-64796	Applications	Species
Chen B, Zhang J, Nie D et al. Characterization of the structure of rabbit anterior cruciate ligament and its stem/progenitor cells. J. Cell. Biochem. Nov 1 2018 [PMID: 30387227] (IHC, Rabbit)	IHC	Rabbit
Jiang K, Chaimov D, Patel SN et al. 3-D physiomi-mimetic extracellular matrix hydrogels provide a supportive environment and human islet culture. J. Cell. Biochem. [PMID: 30224090] (ICC/IF)	ICC/IF	
Brooks JD et al. Histopathologic correlation of breast MRI Breast Cancer Res. Clin Oncol. [PMID: 30140962] (IHC-P, Human)	IHC-P	Human
Veber CN et al. Near-Infrared Fluorescence Imaging of Matrix Metalloproteinase 2 Activity in Vasc Interv Radiol. Jul 27 2018 [PMID: 30140962] (IHC-P, Rat)	IHC-P	Rat
et al. EphrinB2 activation enhances amyloid- β deposits and		Rat

6939 product results

Filters [Clear all](#) Filtered by Primary antibodies x IHC-P x Recombinant antibodies x

Product types [Clear](#)

Primary antibodies (6939)

More primary antibodies (6933)

Monoclonals (6727)

Rabbit Monoclonal Antibodies (6592)

Flow cytometry antibodies (2974)

Conjugated Primary Antibodies

Research areas

Signal Transduction (2277)

Cancer (2154)

Epigenetics and Genomics (2154)

Metabolism (1977)

Cell Biology (1977)

Neuroscience (1977)

Target / Protein

Recombinant RcbMAB 10 μ l Trial Size

Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab177487)

★★★★★ Reviews (54) Specific References (135)

Description: Rabbit monoclonal [EPR12763] to NeuN - Neuronal Marker

Application: Flow Cyt, ICC/IF, IHC-FoFr, IHC-Fr, IHC-P, WB

Reactivity: Mouse, Rat, Sheep, Goat, Cat, Dog, Human, Pig, Zebrafish, Cynomolgus monkey, Common marmoset

Conjugate: Unconjugated

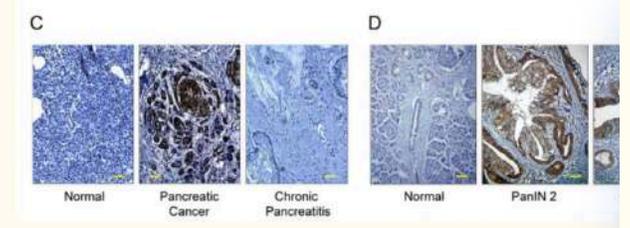
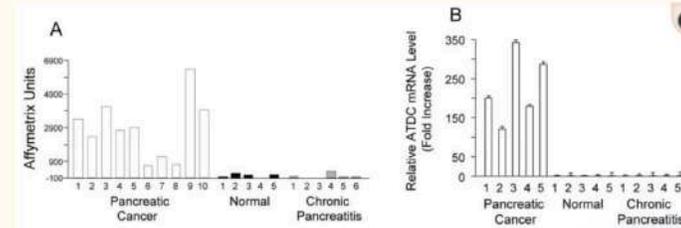


Figure 1 ATDC is highly expressed in human pancreatic cancer

(A) cDNA microarray analysis (Logsdon et al., 2003) was done using HuGeneFL Arrays containing probe sets (Affymetrix, Santa Clara, CA). Microdissected samples of human pancreatic cancer (bars), normal pancreas (n=5, black bars) and chronic pancreatitis (n=5, gray bars) were analyzed. Expression levels of ATDC were expressed as Affymetrix units. (B) Validation of microarray results using quantitative real time RT-PCR analysis. (C) ATDC immunostaining of representative human pancreatic cancer samples. (D) ATDC immunostaining of representative human pancreatic cancer samples. (E) ATDC immunostaining of representative human pancreatic cancer samples. (F) ATDC immunostaining of representative human pancreatic cancer samples. (G) ATDC immunostaining of representative human pancreatic cancer samples. (H) ATDC immunostaining of representative human pancreatic cancer samples. (I) ATDC immunostaining of representative human pancreatic cancer samples. (J) ATDC immunostaining of representative human pancreatic cancer samples. (K) ATDC immunostaining of representative human pancreatic cancer samples. (L) ATDC immunostaining of representative human pancreatic cancer samples. (M) ATDC immunostaining of representative human pancreatic cancer samples. (N) ATDC immunostaining of representative human pancreatic cancer samples. (O) ATDC immunostaining of representative human pancreatic cancer samples. (P) ATDC immunostaining of representative human pancreatic cancer samples. (Q) ATDC immunostaining of representative human pancreatic cancer samples. (R) ATDC immunostaining of representative human pancreatic cancer samples. (S) ATDC immunostaining of representative human pancreatic cancer samples. (T) ATDC immunostaining of representative human pancreatic cancer samples. (U) ATDC immunostaining of representative human pancreatic cancer samples. (V) ATDC immunostaining of representative human pancreatic cancer samples. (W) ATDC immunostaining of representative human pancreatic cancer samples. (X) ATDC immunostaining of representative human pancreatic cancer samples. (Y) ATDC immunostaining of representative human pancreatic cancer samples. (Z) ATDC immunostaining of representative human pancreatic cancer samples.

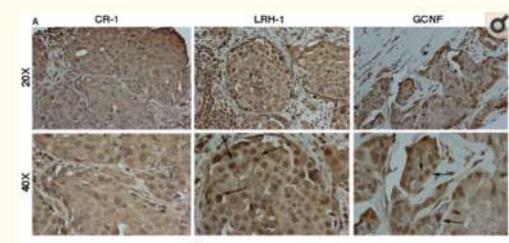
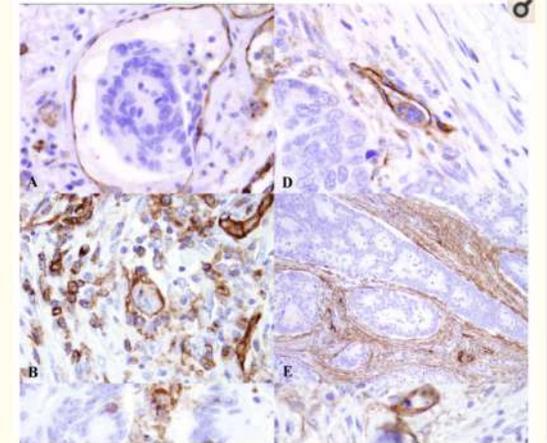


Figure 11 Expression of CR-1, LRH-1 and GCNF in human invasive ductal breast carcinomas

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BenchSci has spent the last 3.5 years teaching a computer how to read published papers like a scientist would



Gradient Ventures



BenchSci is backed by Gradient Ventures, Google's AI-focused venture fund, and built by life scientists, for life scientists.

BenchSci's core technology can decode multi-panel scientific figures and complex scientific sentences to understand millions of biomedical experiments and empower scientists



BenchSci's platform is unlike any other antibody search tool



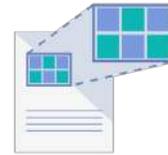
Extracts antibody specifications from published experiments with **proprietary machine learning**—not just SKUs



Applies sophisticated bioinformatics and ontologies to **link antibodies to specific experiments**



Provides unique filters to help scientists choose antibodies for experiments



Unlocks the value of figures with proprietary image recognition technology



Increases confidence in antibody selection with independent third-party validation data



Has **over 31,000 users** at more than **3,600 academic institutions** and is used by **15 of the top 20 pharmaceutical companies**

BenchSci's data is empowered by partnerships with key vendors and publishers

More than 10 million scientific publications, including closed-access papers

SPRINGER NATURE

JAMA
The Journal of the American Medical Association

KARGER
Medical and Scientific Publishers

 Wolters Kluwer

WILEY

PNAS

More than 47,000 validations from independent sources

THE HUMAN PROTEIN ATLAS

 EuroMABNet
European Monoclonal Antibodies Network

ENCODE


More than 6.7 million products from 200 vendor catalogs

ThermoFisher
SCIENTIFIC

 **BD**

M
MERCK MILLIPORE

BenchSci's vision

A world where scientists go from hypothesis to successful experiment in hours to days, instead of weeks to months

Let's take a look at how it works