SPRINGER NATURE

Illustration inspired by the work of Dorothy Hodgkin

Springer Nature Databases & Solutions

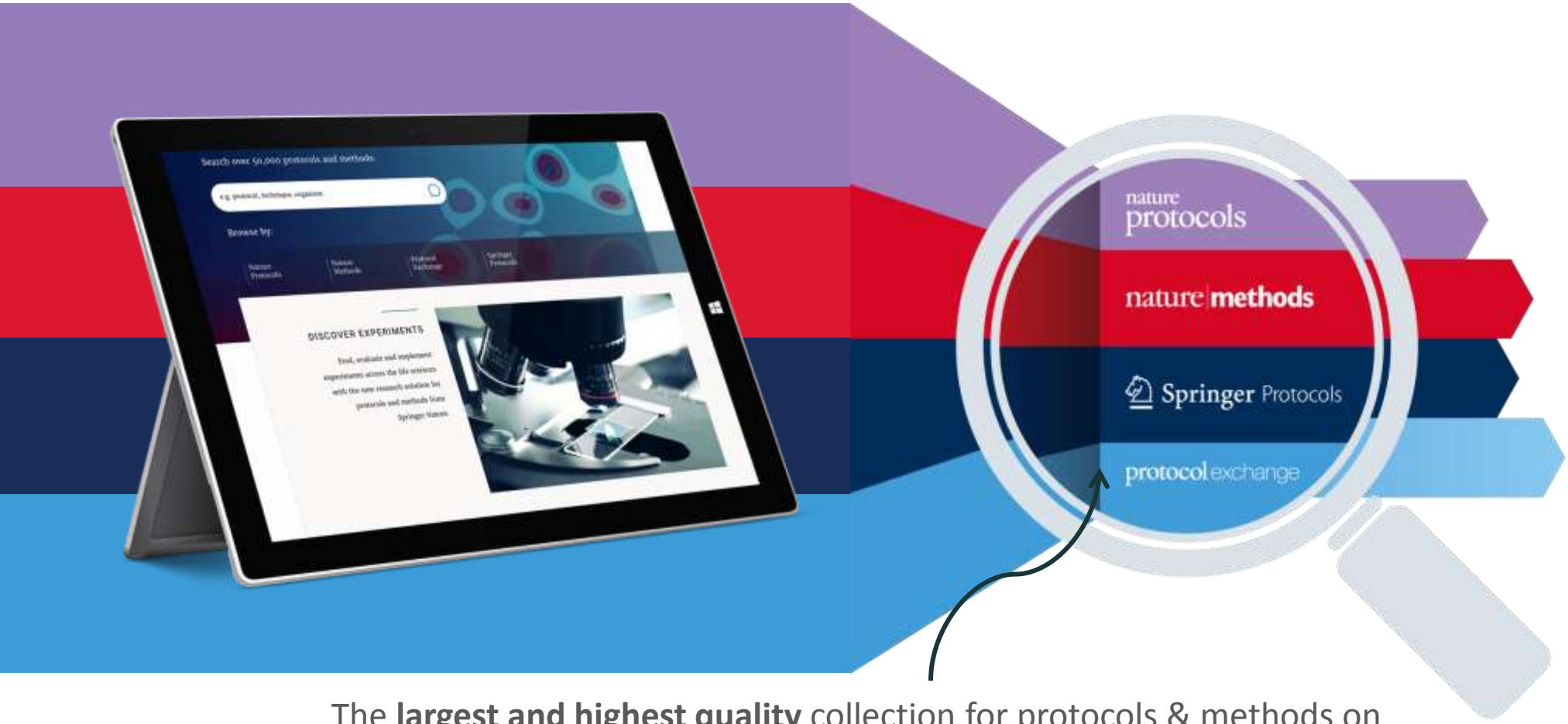
By Cem Üzüm & René Aernoudts

INFORUM Prague

May 30th 2018

ADVANCING DISCOVERY

The Springer Nature Protocols and Methods Portfolio



The **largest and highest quality** collection for protocols & methods on the market available through the **Springer Nature Experiments solution**!

Scope of Content Coverage

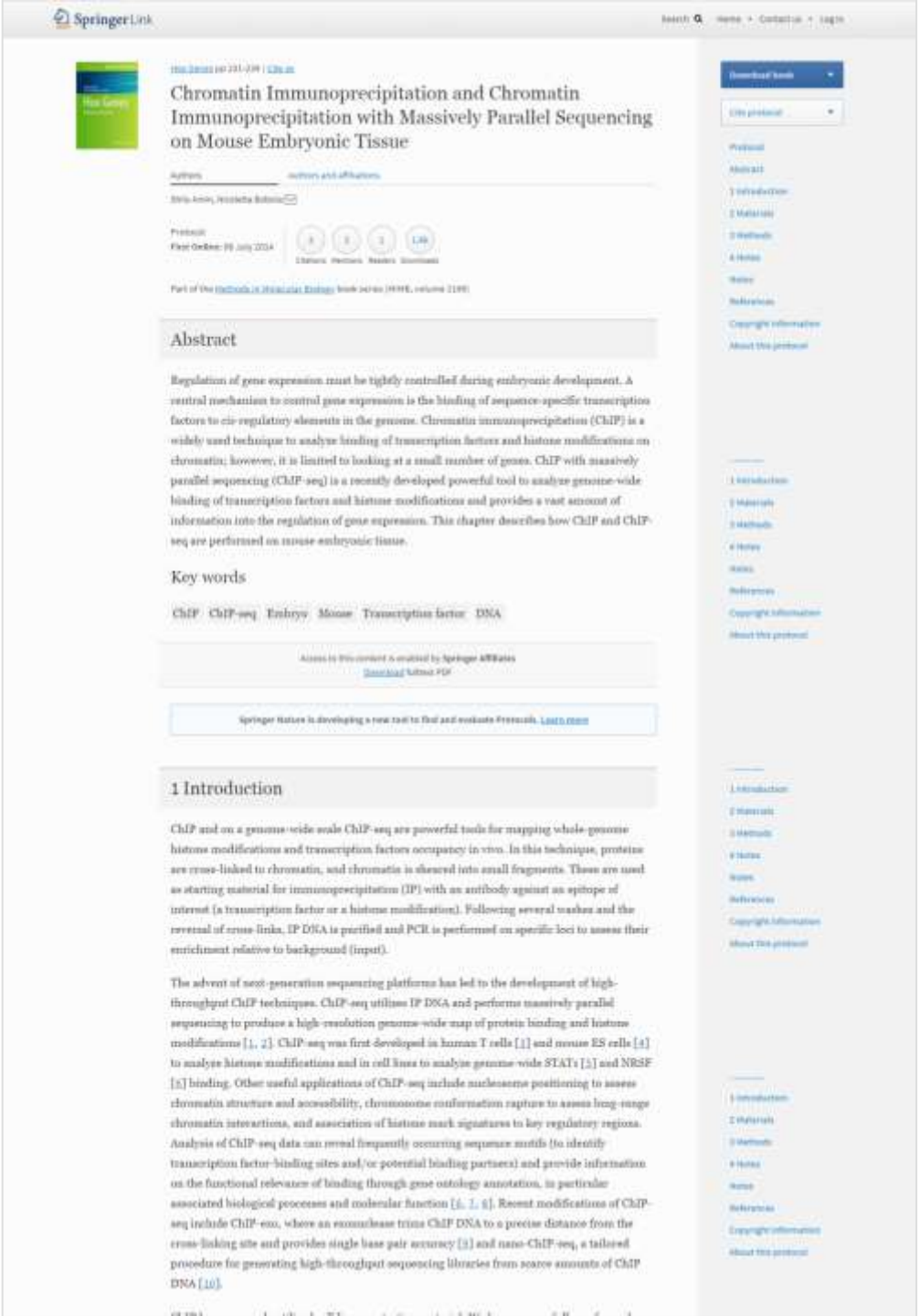
The Protocols & Methods Portfolio covers multiple areas across the life sciences such as:

- Biochemistry
- Bioinformatics
- Biotechnology
- Cancer Research
- Cell Biology
- Genetics/Genomics
- Imaging
- Immunology
- Infectious Diseases
- Microbiology
- Molecular Medicine
- Neuroscience
- Pharmacology and Toxicology
- Plant Science
- Protein Science

Springer Protocols

- Started in 1981, originally based on the classic book series “Methods in Molecular Biology”
- 180 book volumes & 3,000 protocols published per year[1]
- More protocols per topic, covers several niche areas
- Content hosted on SpringerLink
- No protocols ever removed, updated/alternate versions added
- **47,000 protocols**

1) All publication metrics refers to data from end of 2017

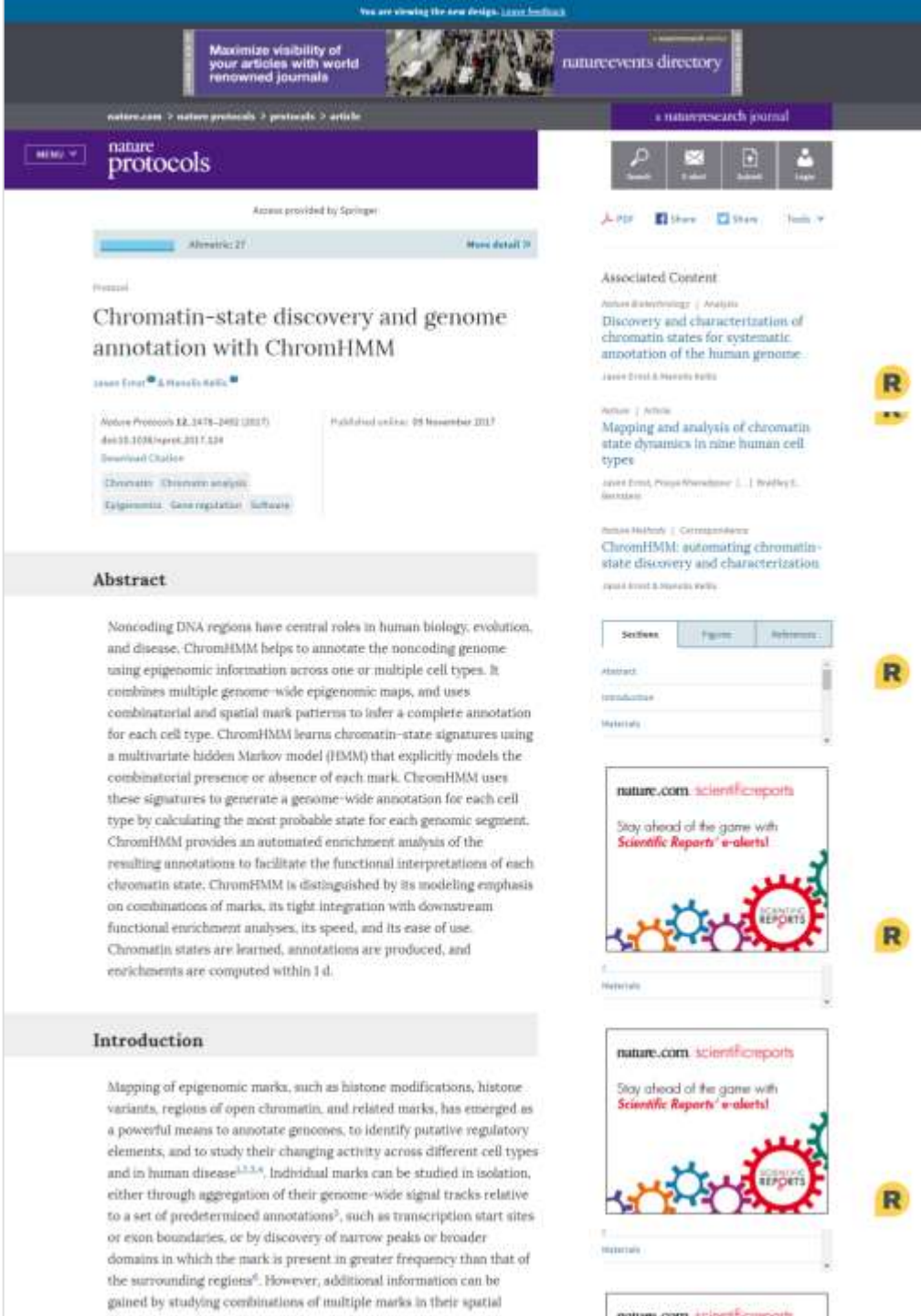


nature methods

- Launched in 2004
- Thorough assessment of the methodological performance with comprehensive technical description
- Primarily research papers with an array of cutting-edge articles, opinions and news
- Publishes monthly with ~360 articles/year
- 2016 Impact Factor: 25.062, ranked *first* in “Biochemical Research Methods” (Journal Citation Reports)
- Content hosted on nature.com platform
- **4,700 articles**

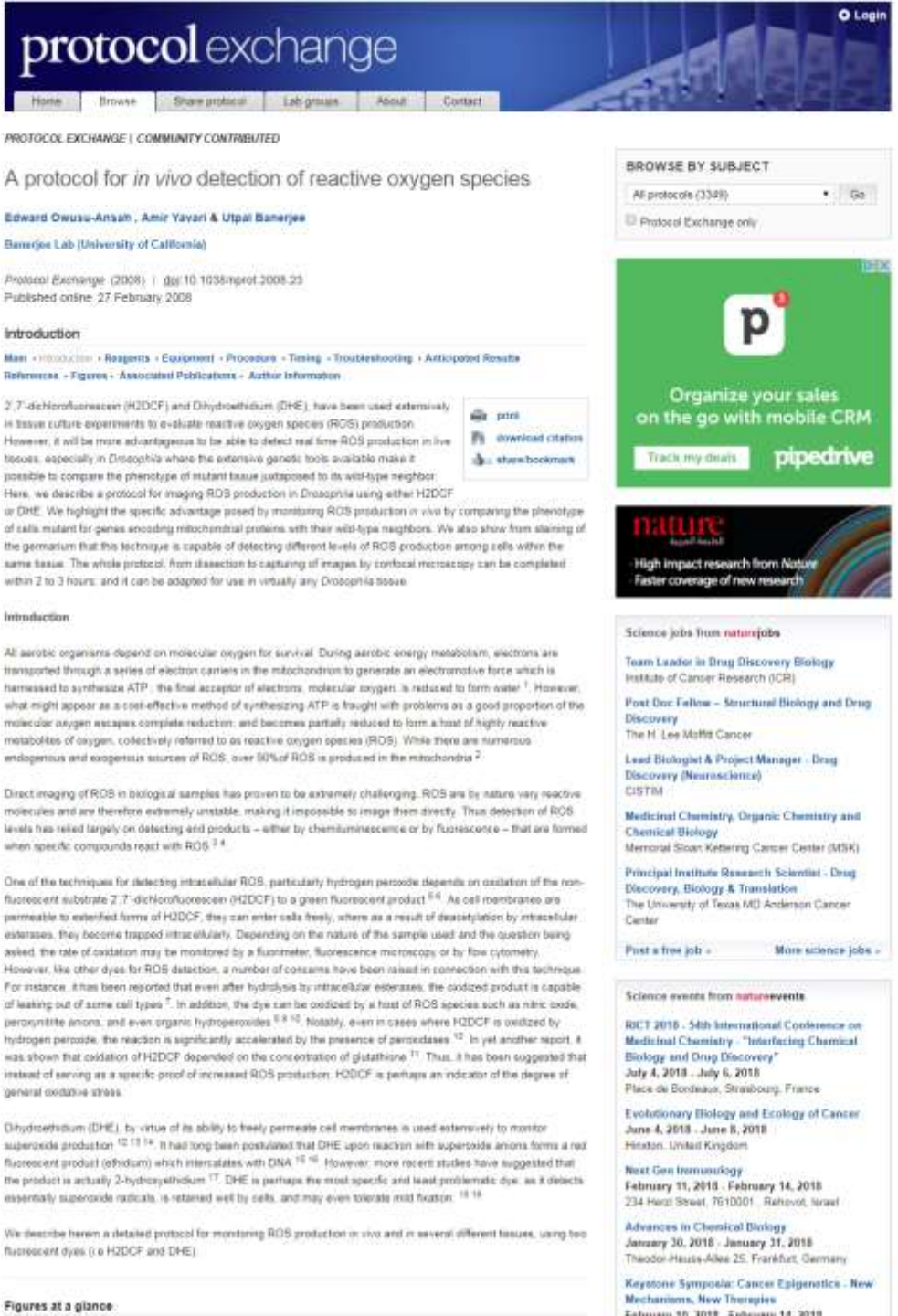
nature protocols
Recipes for Researchers

- Launched in 2006
- Step-by-step format with critical steps, materials list and troubleshooting tips
- Publishes monthly with ~200 protocols/year
- Faster for publishing protocols for new techniques
- 2016 Impact Factor: 13.254, ranked *second* in “Biochemical Research Methods” (Journal Citation Reports)
- Content hosted on nature.com platform
- **2,400 protocols**



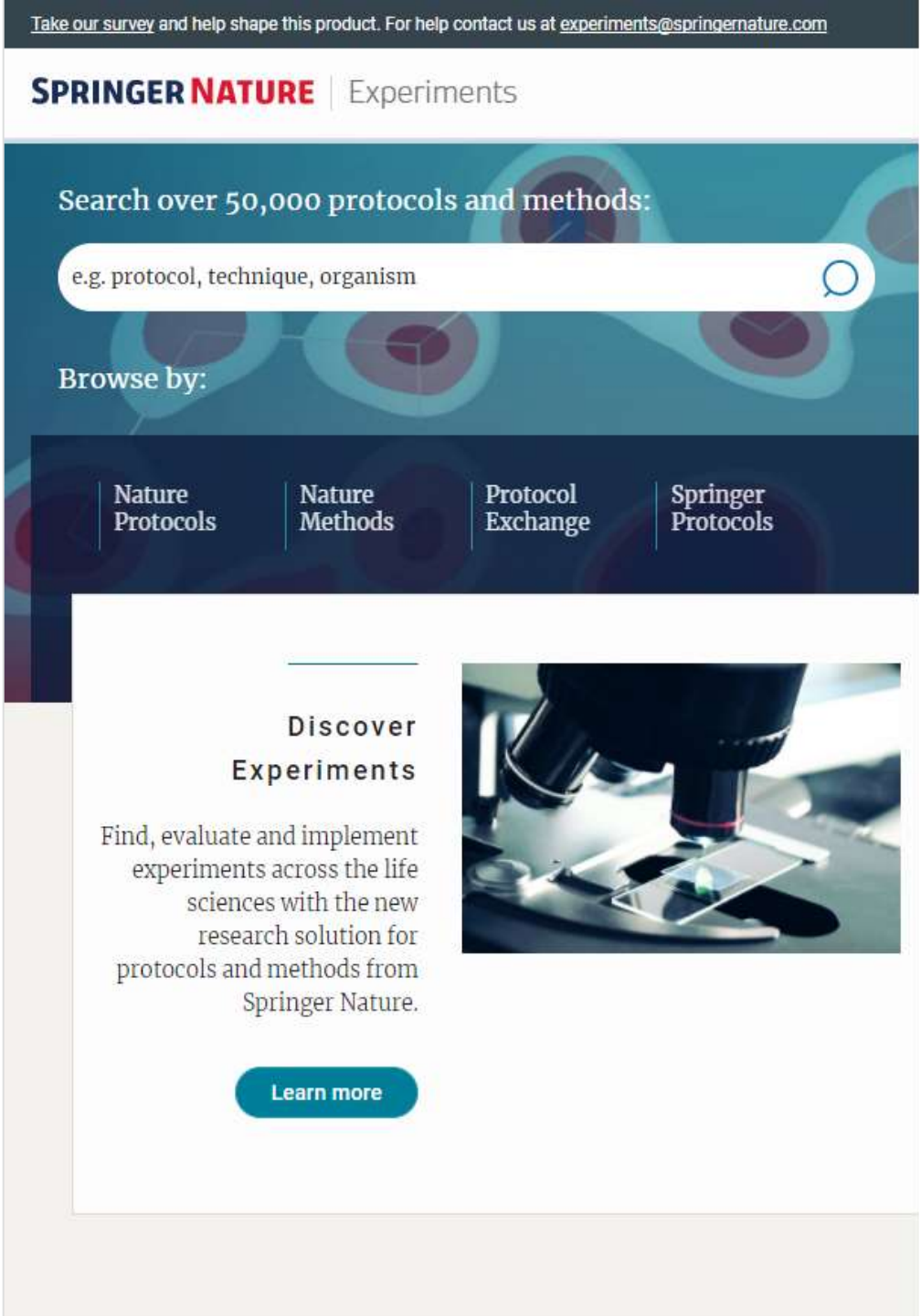
protocol exchange

- Launched in 2006
- Open source, open access repository where users can share and browse protocols
- Content often complements Nature Methods content
- Content hosted on nature.com platform
- **900+ protocols**



SPRINGER NATURE | Experiments

- Launched Oct. 2017
- Advanced searching platform spanning the **entire** Springer Nature Protocols & Methods Portfolio
- Searching/browsing content is free; licenses are required for full-text access



Finding the Appropriate Scientific Protocol is Very Inefficient

Google Scholar

PubMed

Library Website

Other Publishers

Google

Springer Link

nature.com

What do Researchers Struggle with When Looking for Protocols & Methods and How Can Experiments Help?

Finding protocols and methods

- Aggregated search of SN Protocols and Methods content - **over 56 000 articles**!
- Dedicated filters, optimized search and intelligent article indexing

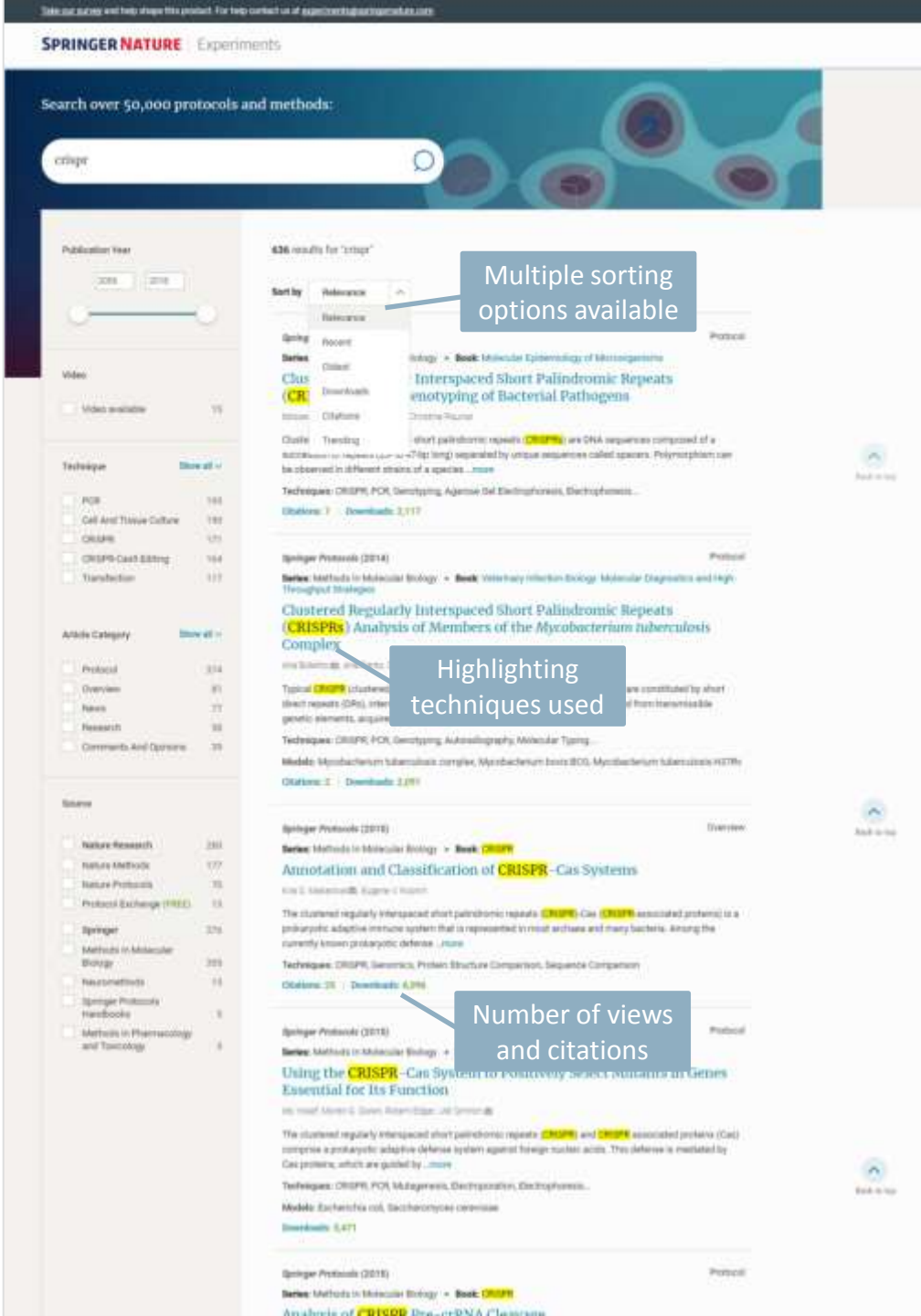
Evaluating if they are relevant

- Extract relevant information for at-a-glance evaluation of the search results - **Search Page**
- Overview of the article's key information - **Landing Page**

SPRINGER NATURE | Experiments

Advanced Search

- Sophisticated **search filters** to narrow down results (publication year, video, technique, article type, article source)
- **Sort results** by relevance, publication time, citations, downloads
- More search concepts being developed (e.g., for cell lines, organisms, equipment & reagents)



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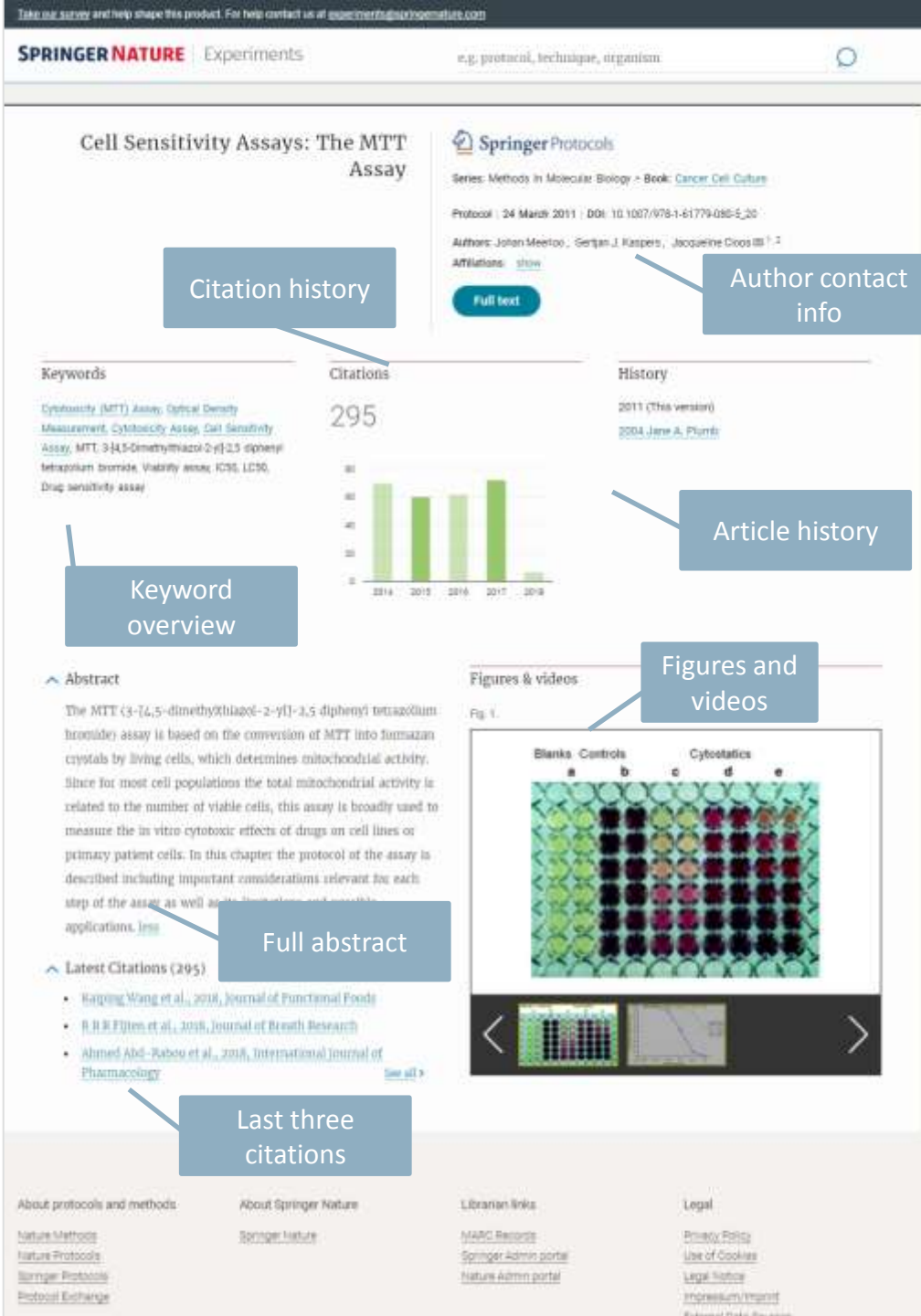
Article Evaluation Page

Gives key information for evaluation and comparison of protocols and methods

- **Abstract and references**
- **Keywords** (supplied by the author & extracted by us)
- **Citation history and last 3 citations:** gives the user confidence that the protocol is being successfully used in other research projects
- **Article history**: are there updates, older versions, corrections?
- **Figures and Videos**



Key Benefits of SN Protocols and Methods Portfolio

Access the **largest** and most comprehensive collection of protocols & methods

Oldest and **most prestigious** books and journals in the protocols and methods field

Easily search and browse through the entire portfolio with *Experiments*

Save valuable time with *Experiments* advanced filtering and search options

Questions?

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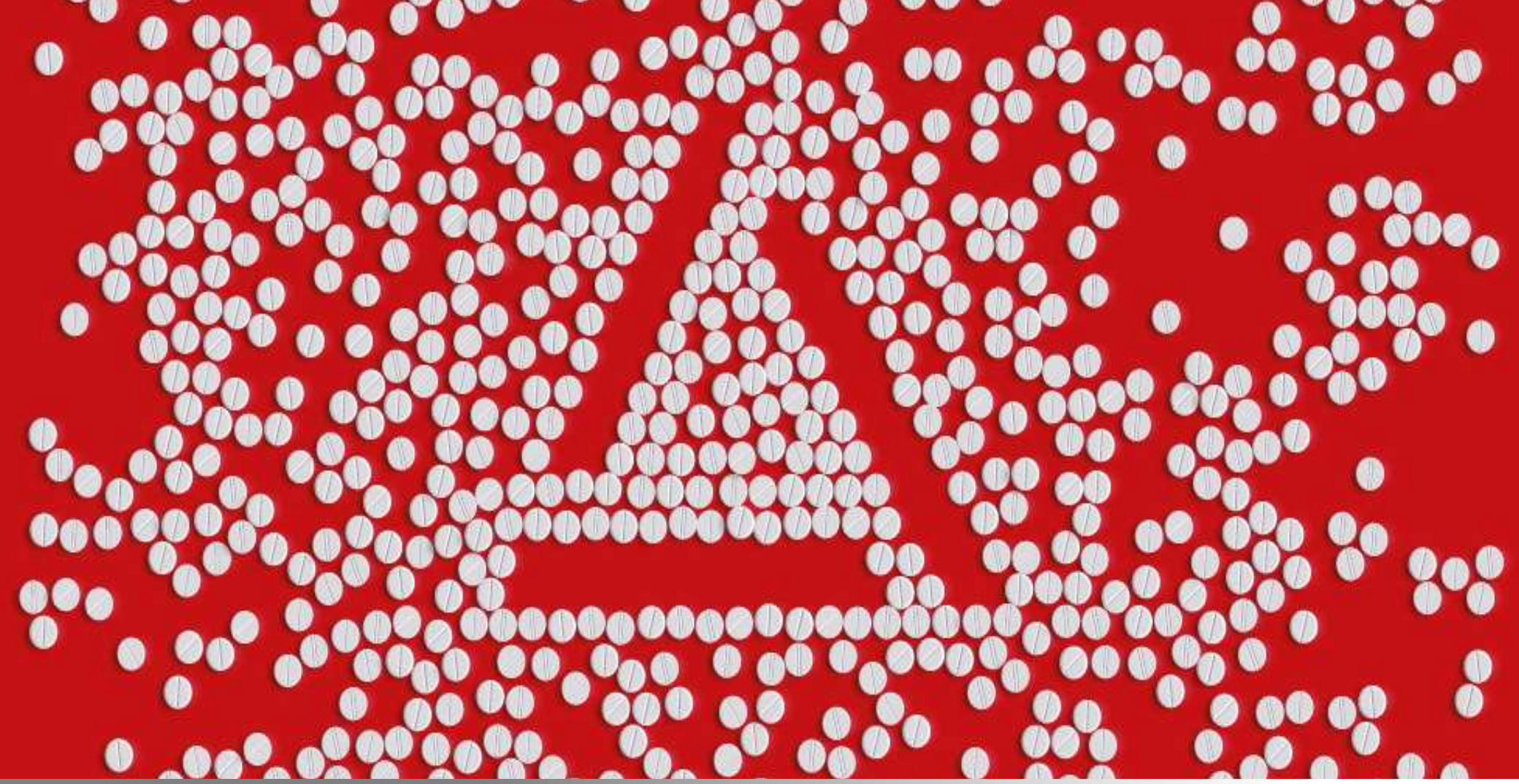
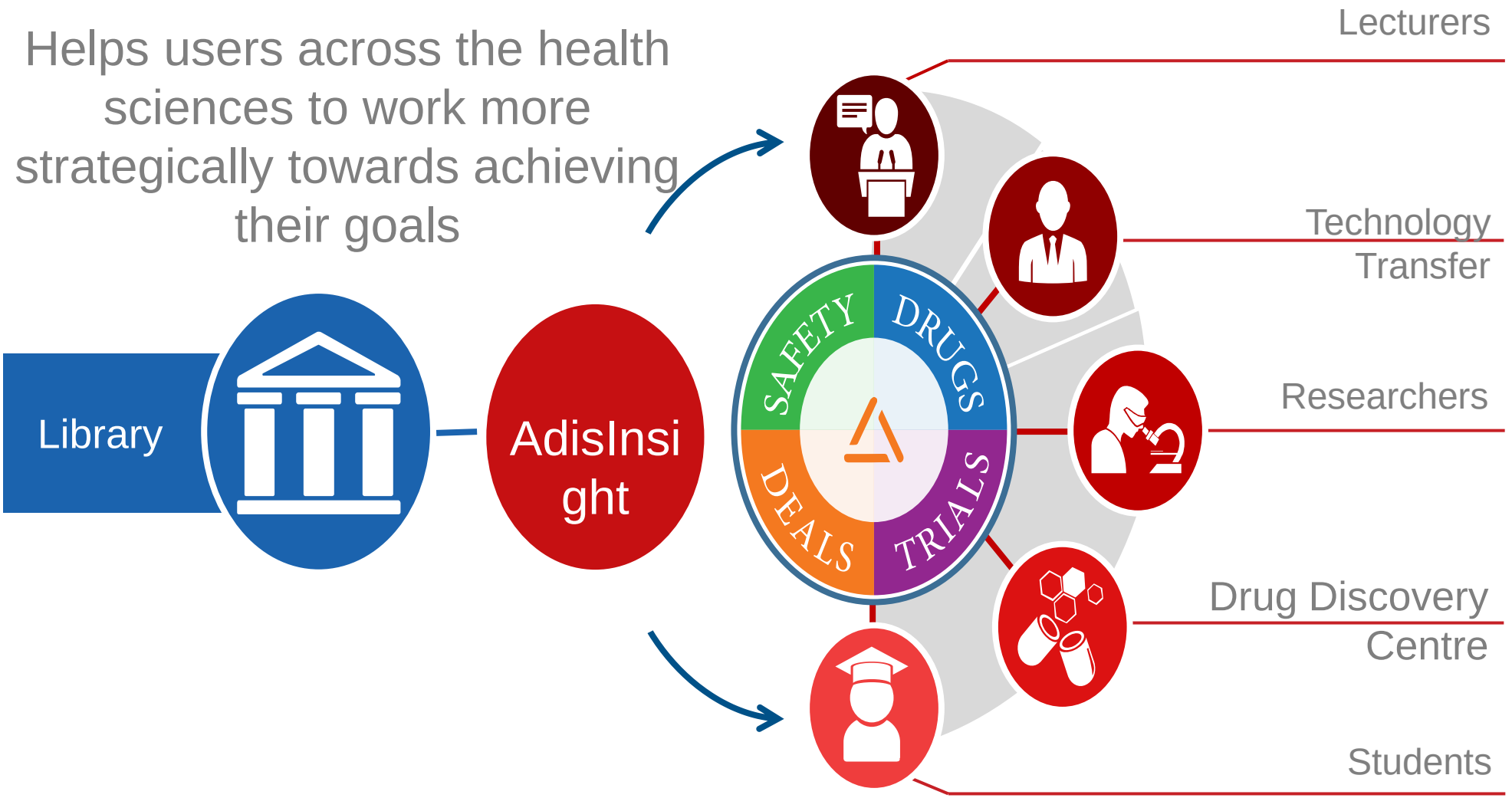


Make Great Discoveries Possible With AdisInsight

Adis

AdisInsight For Your Academic Institution

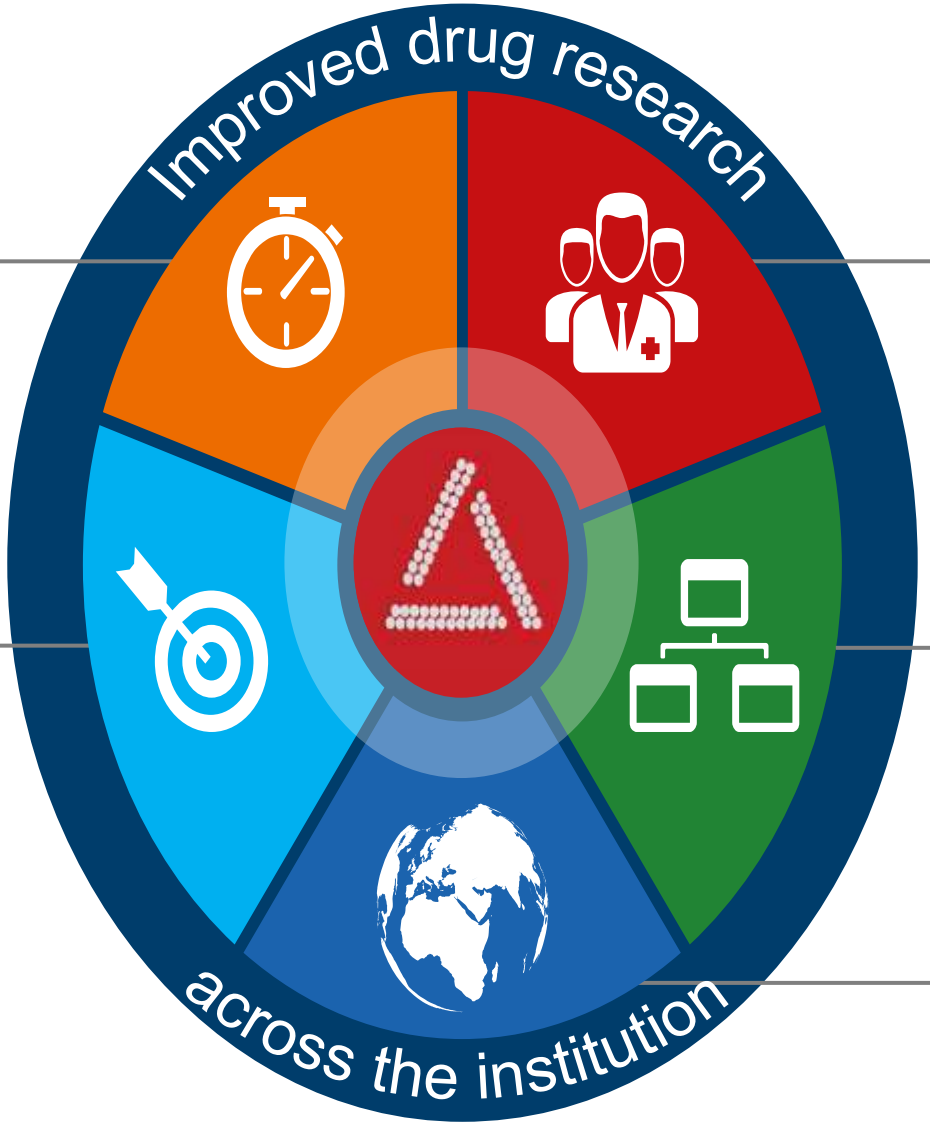
Helps users across the health sciences to work more strategically towards achieving their goals



AdisInsight Delivers

Time Saving

Accuracy



Scientific Expertise

Intuitive Integrated Database

Global Perspective

Knowledge

Written by scientists

- International team
- All have degrees in Life Sciences
- Significant working experience and knowledge
- Extensive training and accreditation programme
- ISO 9001: 2008 Quality Management Certification
- Methodical process f creating content

Intuitive Integrated Database

Intuitive Integrated Database

Drug treatments being developed worldwide

How well they work

Who is working on them

How soon they will be available

Intuitive Integrated Database

Clinical trials being performed

Study centre and investigator details

Trial design

Outcomes and results

Intuitive Integrated Database

Adis

Purchases and acquisitions

Joint ventures

Agreements for licensing, R&D and more

Benchmarking of deal values and terms

Intuitive Integrated Database

Adis

Adverse drug reaction case reports

Drug safety studies

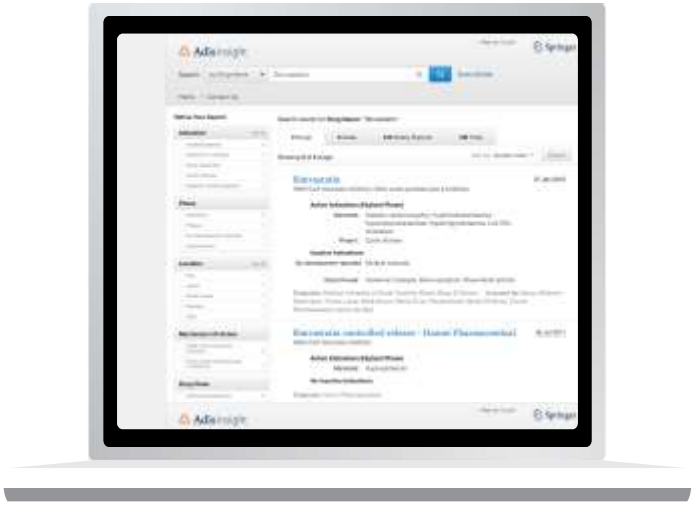
Regulatory news

Intuitive Integrated Database

AdisInsight is an easy-to-use platform designed to help you find the information you need

AdisInsight

Single search platform



Results across all content sets

Global Perspective

Global Coverage

AdisInsight connects your users to the literature

Accuracy

Monitoring

Continuous monitoring of global sources to check for new data

Assessing

New data is reviewed and assessed to extract relevant information, based on its significance and scientific merit

Accuracy

Categorizing

Detailed indexing is applied to support highly-focused searching

Validating

Assessing

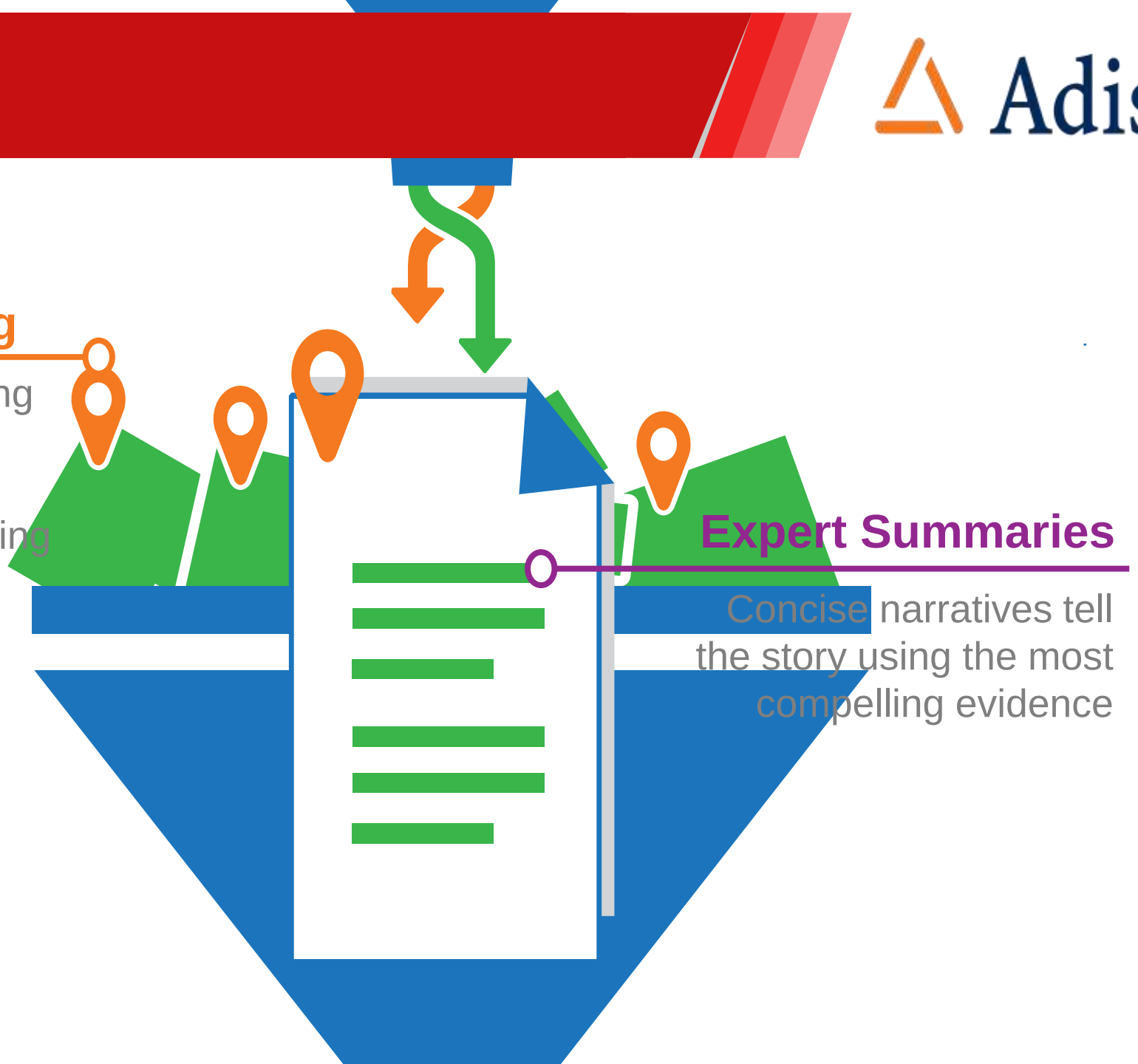
New data is reviewed and assessed to extract relevant information, based on its significance and

Verified across multiple sources to resolve discrepancies and remove bias

Accuracy

Categorizing

Detailed indexing is applied to support highly-focused searching



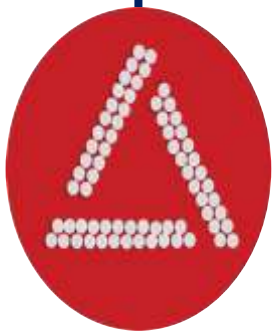
Expert Summaries

Concise narratives tell the story using the most compelling evidence

Time Saving

By the time your users reach AdisInsight, most of the hard work has been done!

Assessment of Data undertaken



Validation of Data undertaken

AdisInsight Database

Because we make it easy for them to access the most relevant, accurate information they can…

- Spend less time searching for information
- Quickly answer research questions
- Focus on the most promising areas of research

SpringerMaterials: The Materials Science Database

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What is SpringerMaterials?

SpringerMaterials: *A Curated Database of* **Material Properties**

Major Material Types & Property Classes include

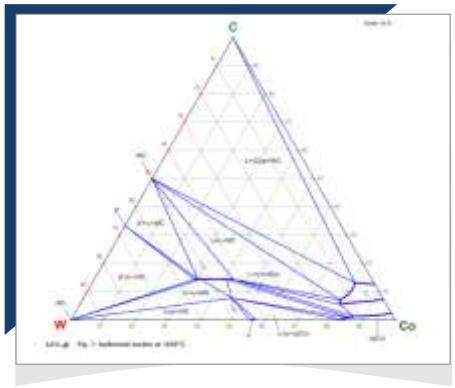
- Metals & Alloys
- Ceramics & Glasses
- Polymers
- Organic Substances
- Composites
- Atoms & Nuclei

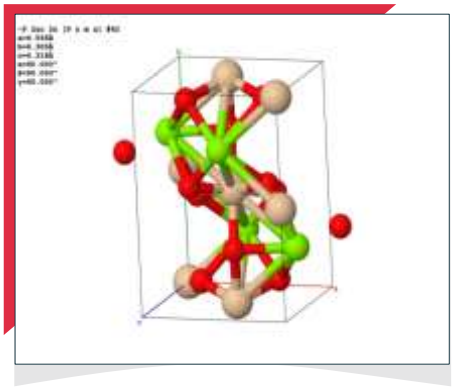
- Physical
- Chemical
- Thermodynamic
- Electromagnetic
- Structural
- Mechanical
- Spectroscopic
- Nuclear

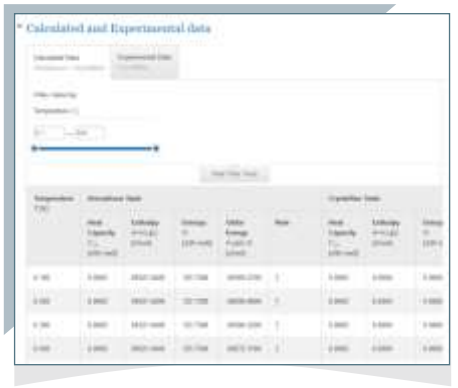
SpringerMaterials Content Overview

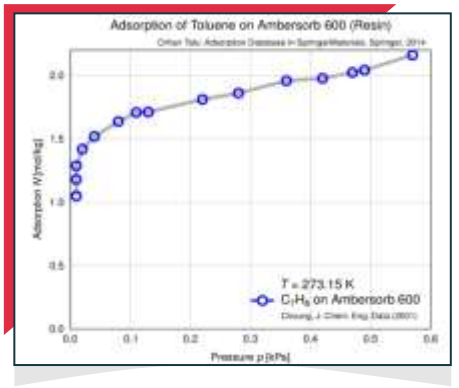
3,000+ *property types,* **290,000+** *materials,* **600,000+** *entries, & always growing!*

Data types: *Phase diagrams, Crystal Structures, Data Tables, Material Profiles, Graphs, etc.*









Database content **updated quarterly**

SpringerMaterials Users: A (Small) Selection

Chemistry

Polymer Chemist
Polyolefin heat capacities

Surface Scientist
Gas adsorption isotherms

Crystallographer
Crystal structures & atomic positions

Analytical Chemist
NMR spectral data

Engineering

Mechanical Engineer
Alloy tensile strengths

Chemical Engineer
Thermodynamic data

Metallurgist
Alloy corrosion data

Nuclear Engineer
Radiation shielding data

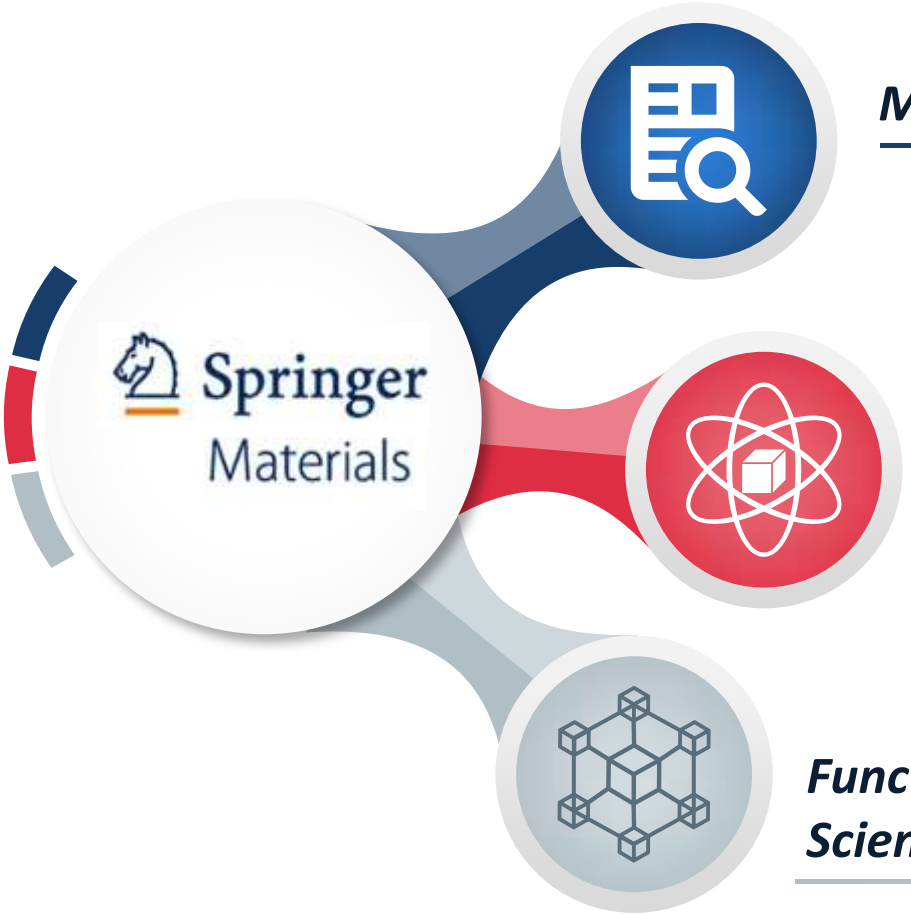
Physics

Spectroscopist
Raman spectra

Nuclear Physicist
Neutron resonance parameters

Condensed Matter Researcher
Doped metal band gaps

SpringerMaterials: *Building a Modern Database*



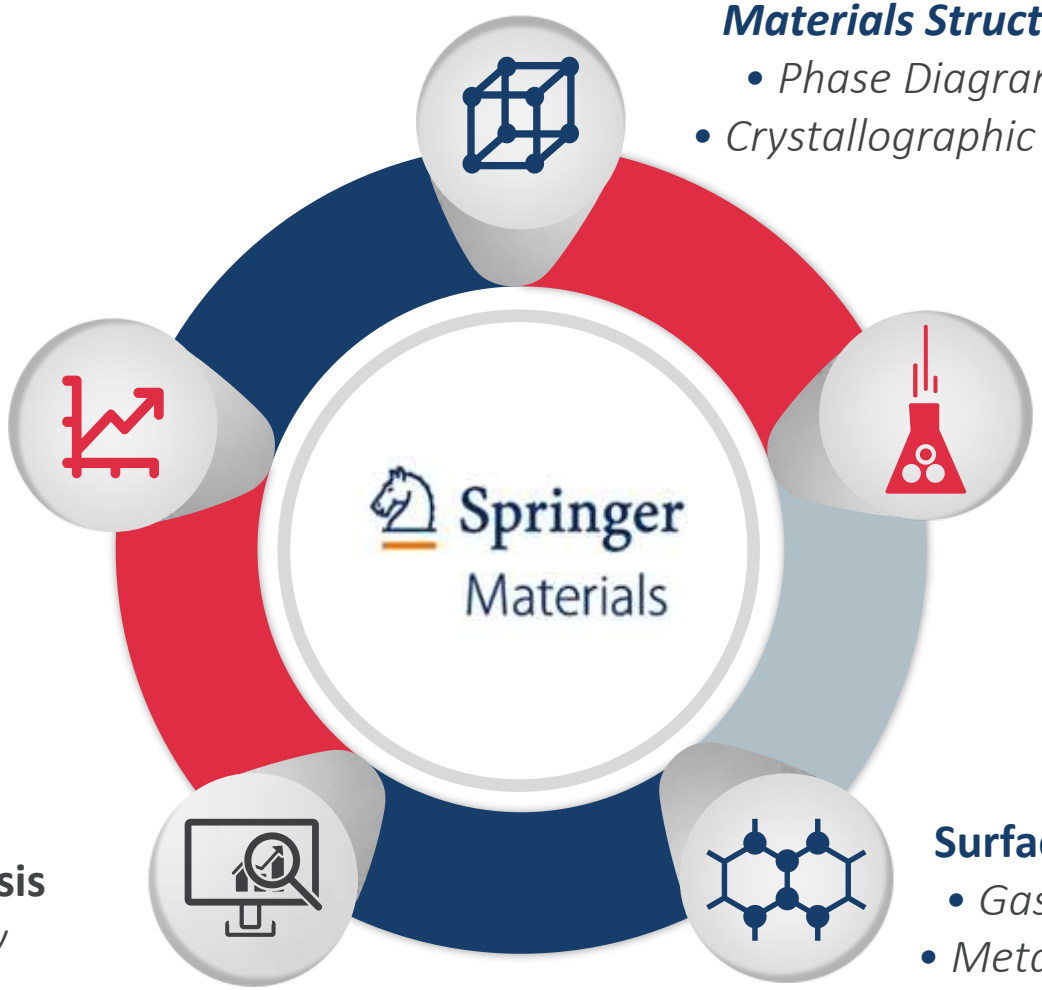
Multisource Scientific Content Curation

Digitization, Enrichment, and Consolidation of Data

Functionalities Specialized for Materials Science

Data sources: *Classic Landolt-Börnstein series, MSI Eureka, Linus Pauling Files – Inorganic Solid Phases, Polymer Thermodynamics Database (ATHAS), Dortmund Databank of Separation Technology, Springer Handbooks (e.g., VDI Heat Atlas), Adsorption Database, NIST Corrosion Database, SpringerMaterials Fundamentals Handbooks*

Coverage of Key Materials Science Topics



Materials Structure
- *Phase Diagrams*
- *Crystallographic Data*

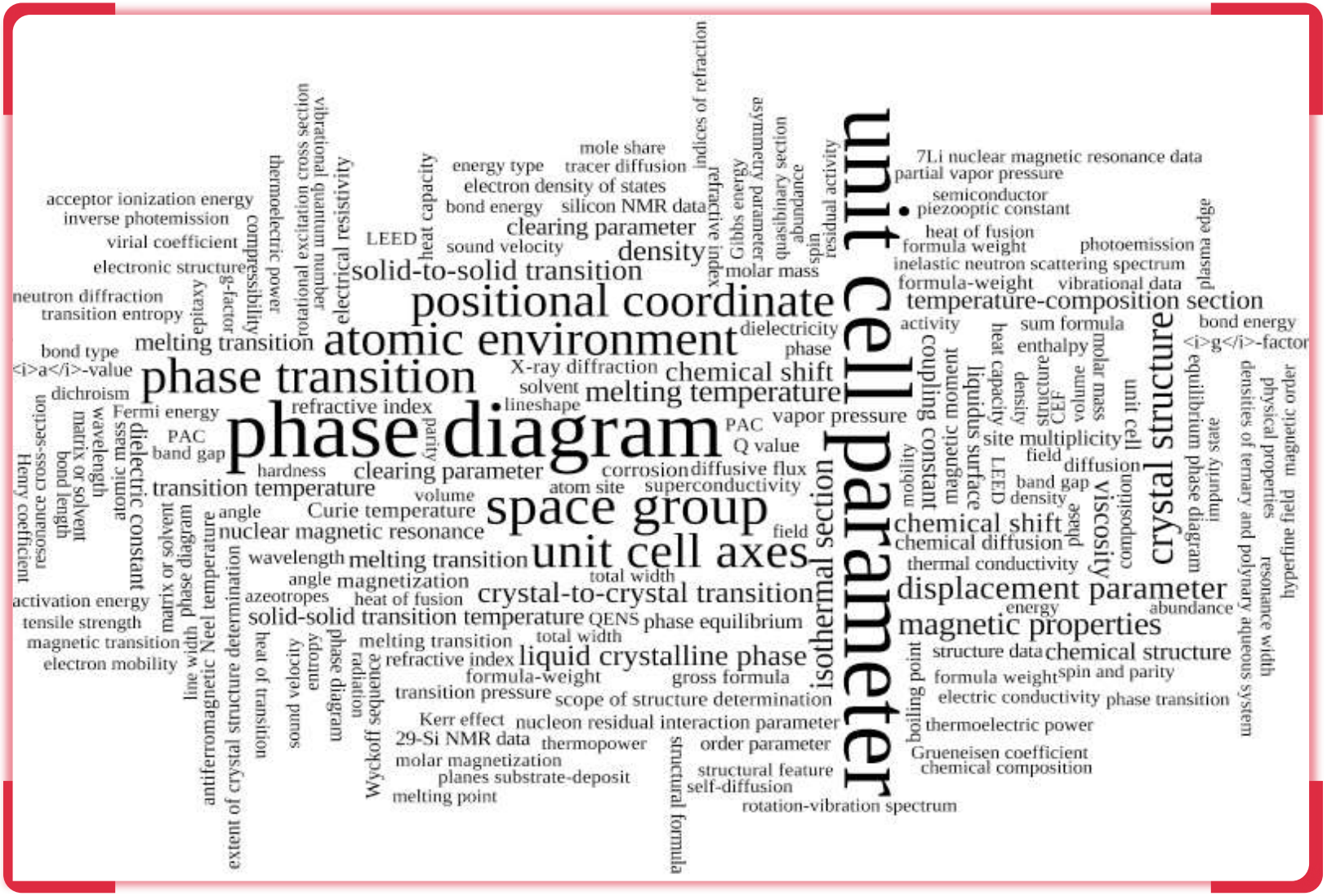
Physical & Chemical Data
- *Electronic, optical, magnetic properties*
- *Mechanical properties, reactivity, etc.*

Thermodynamics
- *Phase equilibria & transitions*
- *Mixture properties*

Materials Analysis
- *Spectroscopy*
- *Microscopy*
- *Characterization*

Surface Science
- *Gas Diffusion*
- *Metal Corrosion*
- *Diffusion*

Typical SpringerMaterials Content at a Glance



SpringerMaterials Functionality Overview

Accessible **anywhere, anytime** *from any device*
materials.springer.com

Interactive *functionalities for visualizing and analyzing materials data*

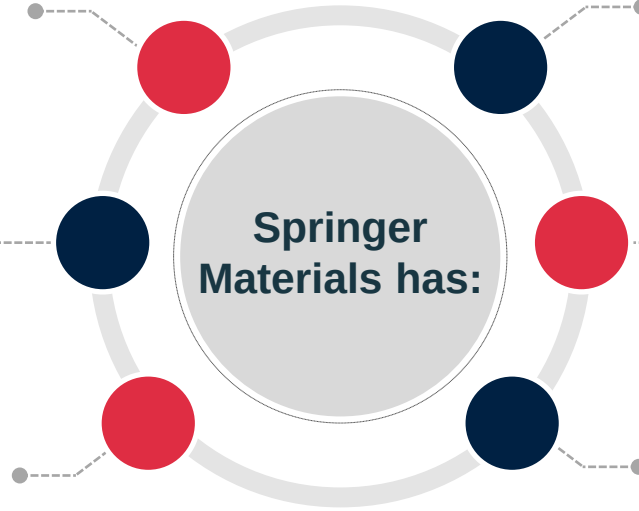
Total Access *to the entire Springer Materials data collection*

Refine results *by property and subject area*

Simple/ Complex Searches: *Text, Periodic Table, Chemical Structure*

SPRINGER NATURE

Features:



3,000 property types, 290,000 materials and chemical systems, and 1.4+ million citations

Powerful search algorithms based on tagged content

Interactive material property visualization & analysis tools

Cloud-based platform optimized for all devices

Single platform access to data from multiple curated sources (e.g., Landolt-Börnstein)

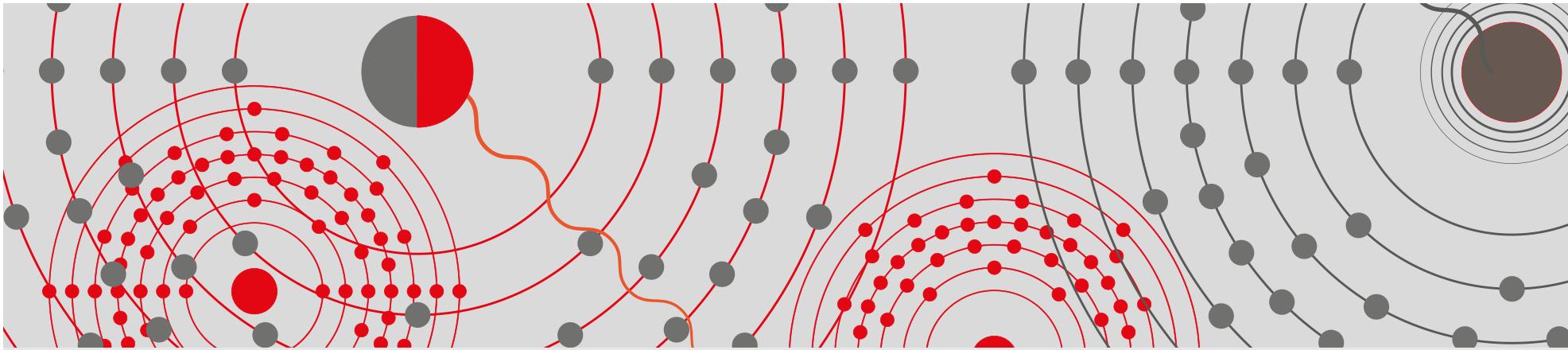
Continuously updated content and functionality

Research Benefits:

- Regular updates reflect progress in each field
- Data curation by experts: content is accurate & reliable
- Aggregated data for comparison, analysis & content discovery across disciplines
- Save valuable time with advanced tools to quickly find, visualize, and analyze data
- No installation needed; anywhere access. Easily download & export data in multiple formats
- Intuitive search functions - text, elemental component, chemical structure; easily sort & refine results

SPRINGER NATURE

Part of SPRINGER NATURE

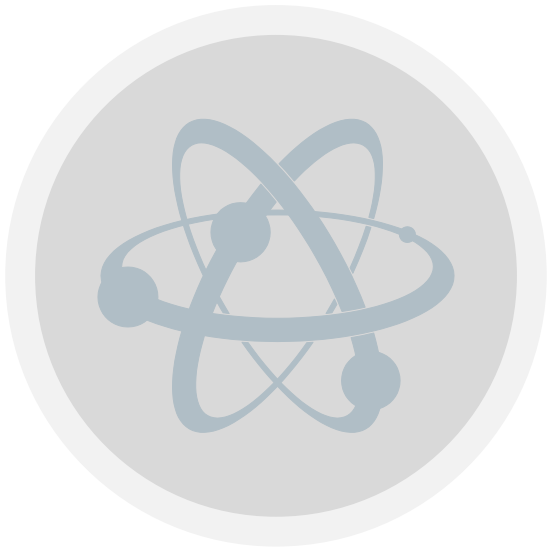


Nano

a Nature Research Solution

nature research

Agenda



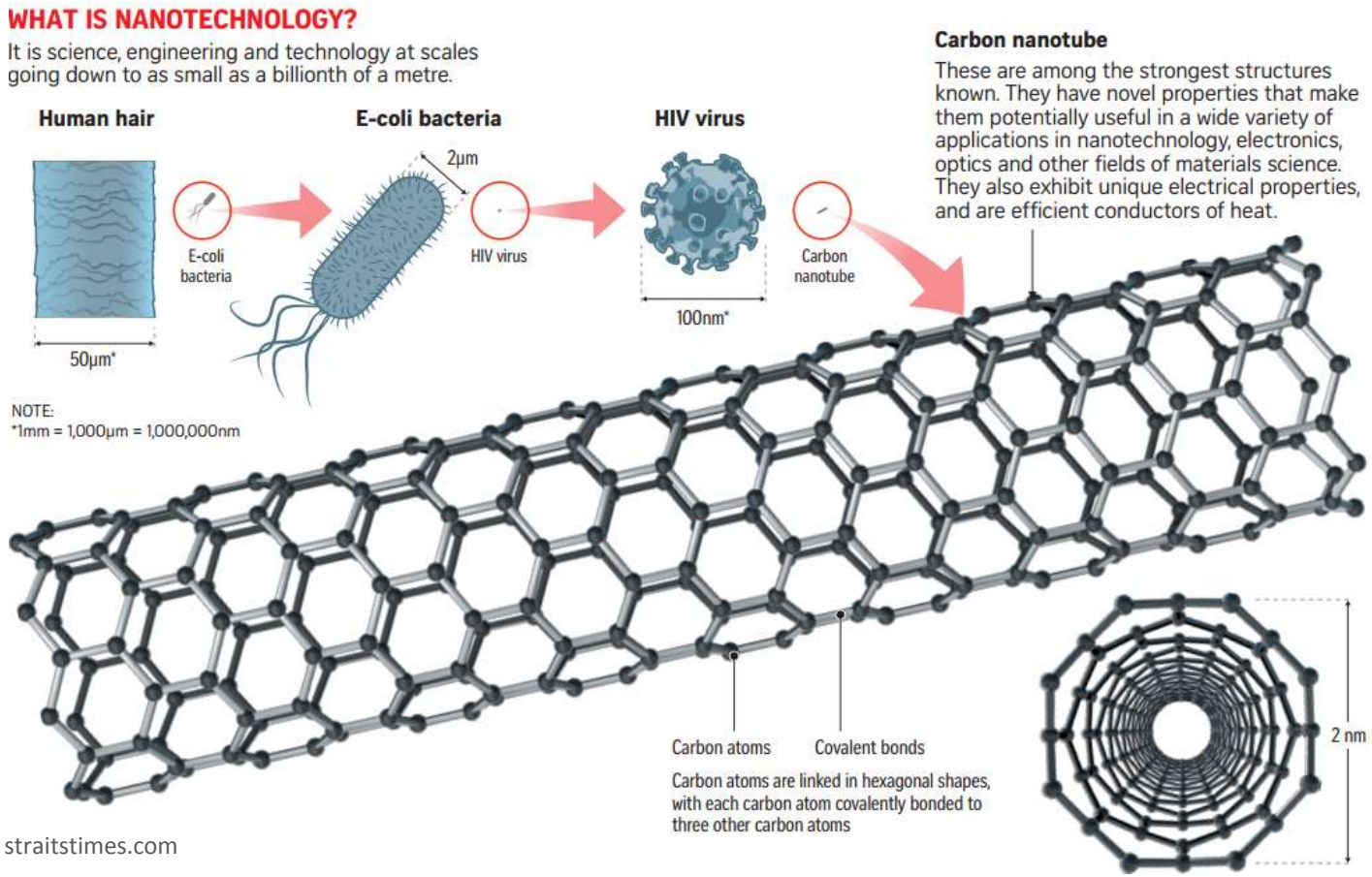
01 About Nanotechnology

02 What is Nano and how does it support researchers?

03 What makes Nano unique?

Nanoscience & technology – quick intro

- Nanoscience & technology is the **understanding and control of matter at the nanometer scale** where unique phenomena enable novel applications.



straitstimes.com

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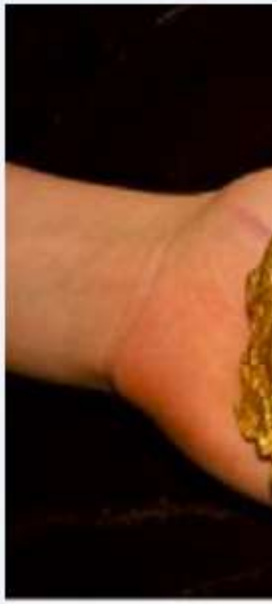
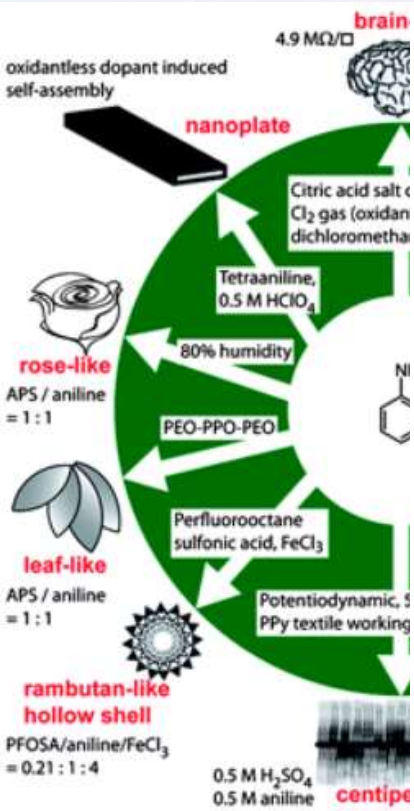
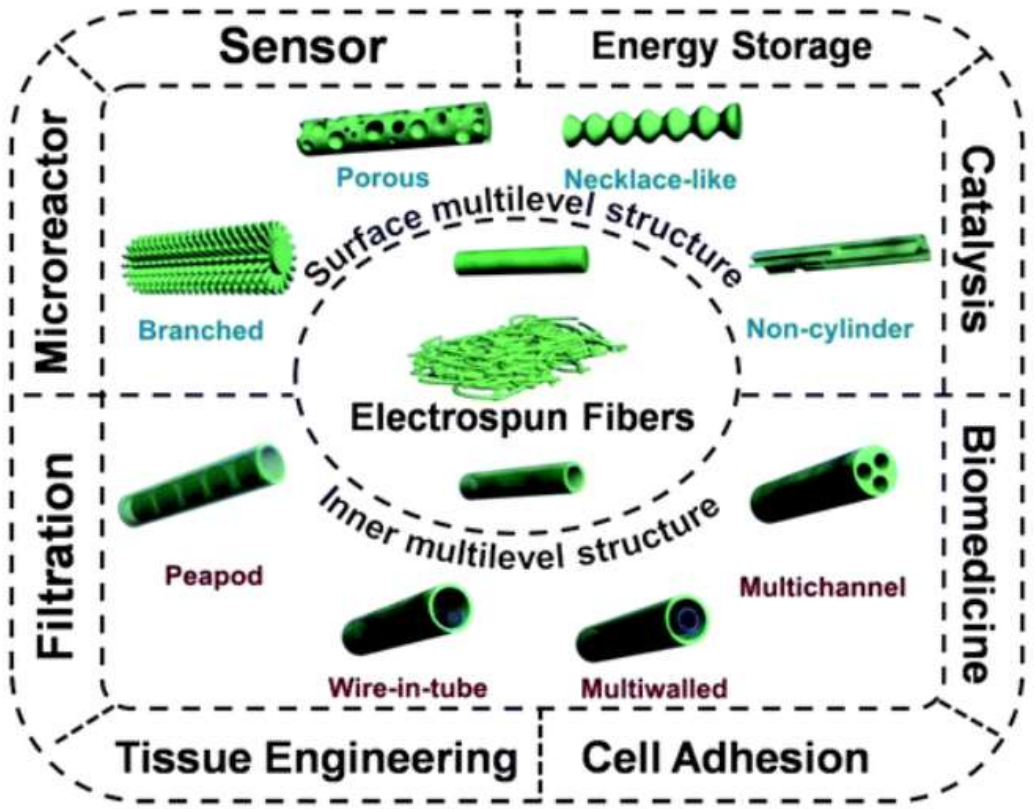


blog.manuscriptedit.com



pub.rsc.org



pub.rsc.org

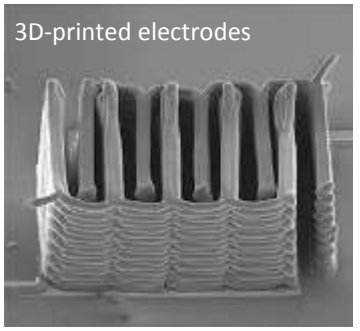
Nanoscience & technology – quick intro

- It **impacts a vast range of fields**, including chemistry, physics, biology, medicine, energy, IT, transportation and environmental science among many others.

Multitech.com

endlhausen-pharma.de

roqqy.com



seas.harvard.edu

BASF.com

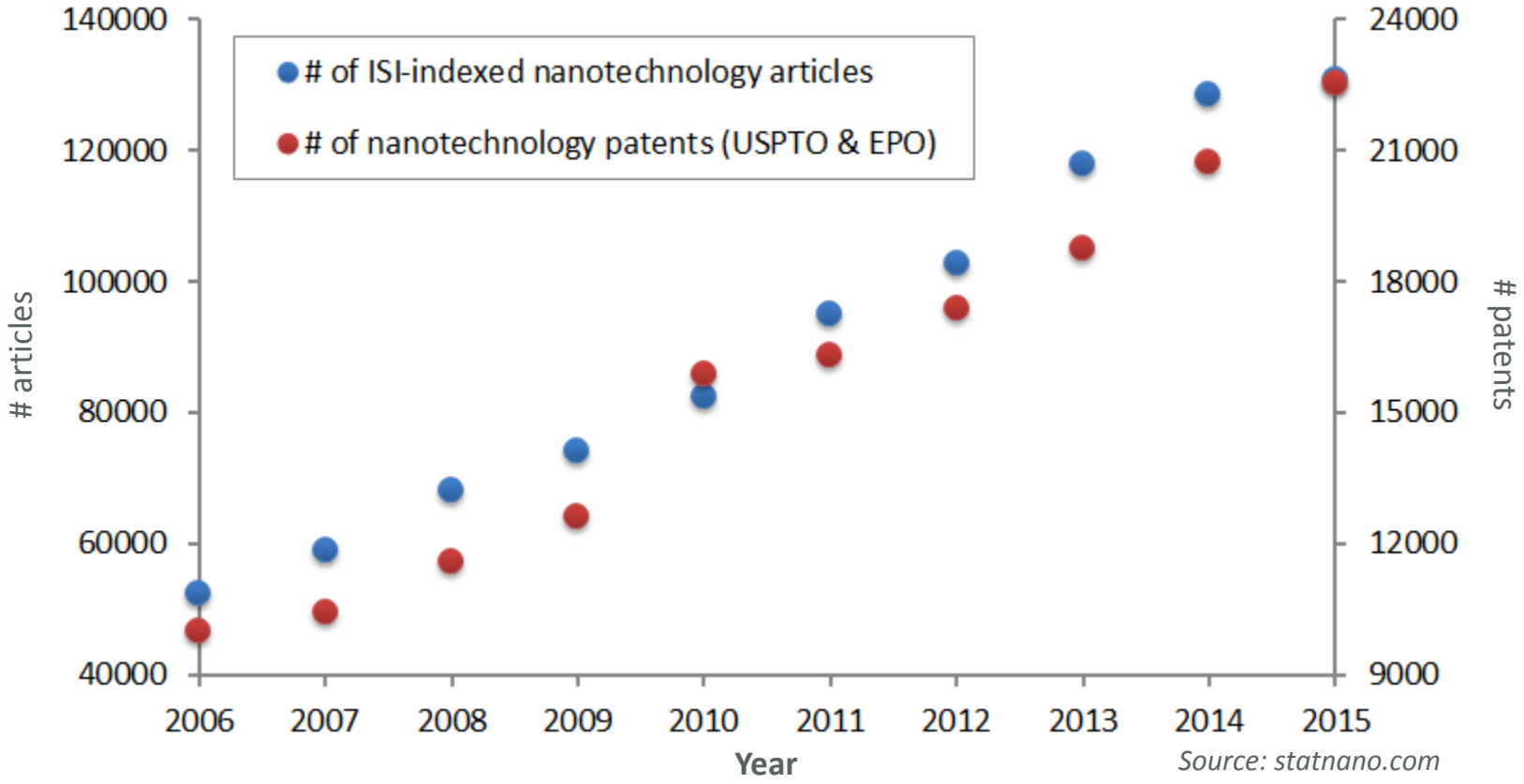
- **Its economic impacts have already been realized** and is expected to expand and grow through a wide breadth of channels.

Different estimates of nanotechnology's economic contribution

Estimate	Geographic scope	Definition of nanotechnology	Source
Revenues of USD 731 billion in 2012	Worldwide	Nano-enabled products	Lux Research
Market size of USD 26 billion in 2014	Worldwide	Narrow definition of nanotechnology applications	BCC Research
Market size of USD 100 billion in 2011	Worldwide	Nanomedicines	BCC Research
Market value of final products of USD 300 billion in 2010	Worldwide	(unclear)	Roco (2001)

World Intellectual Property Organization Report, 2015

Nanoscience & technology – a booming field



Source: statnano.com

- Vast amount of **information and data scattered** throughout journals and patents require classification, indexing and curation for proper management and effective communication.
- Currently **no standardized nomenclature** for nanomaterials.

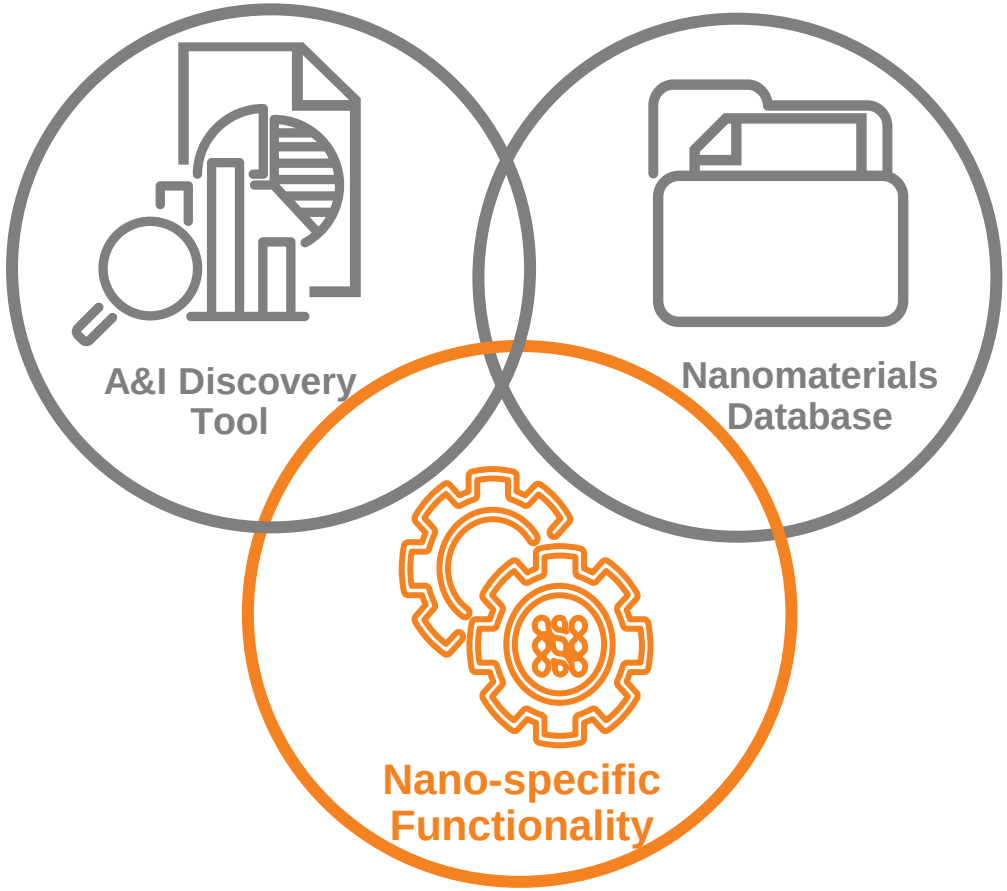
Major pain points with existing resources

1. Large number of irrelevant search results
2. Validating relevancy requires access to the original source
3. Scattered information for similar nanomaterials/devices
4. No single list available for nanomaterials/devices with certain properties or for specific applications
5. Tedious to reconstruct preparation methods and steps for nanomaterials/devices from text

Nano – made by Nanotechnology experts

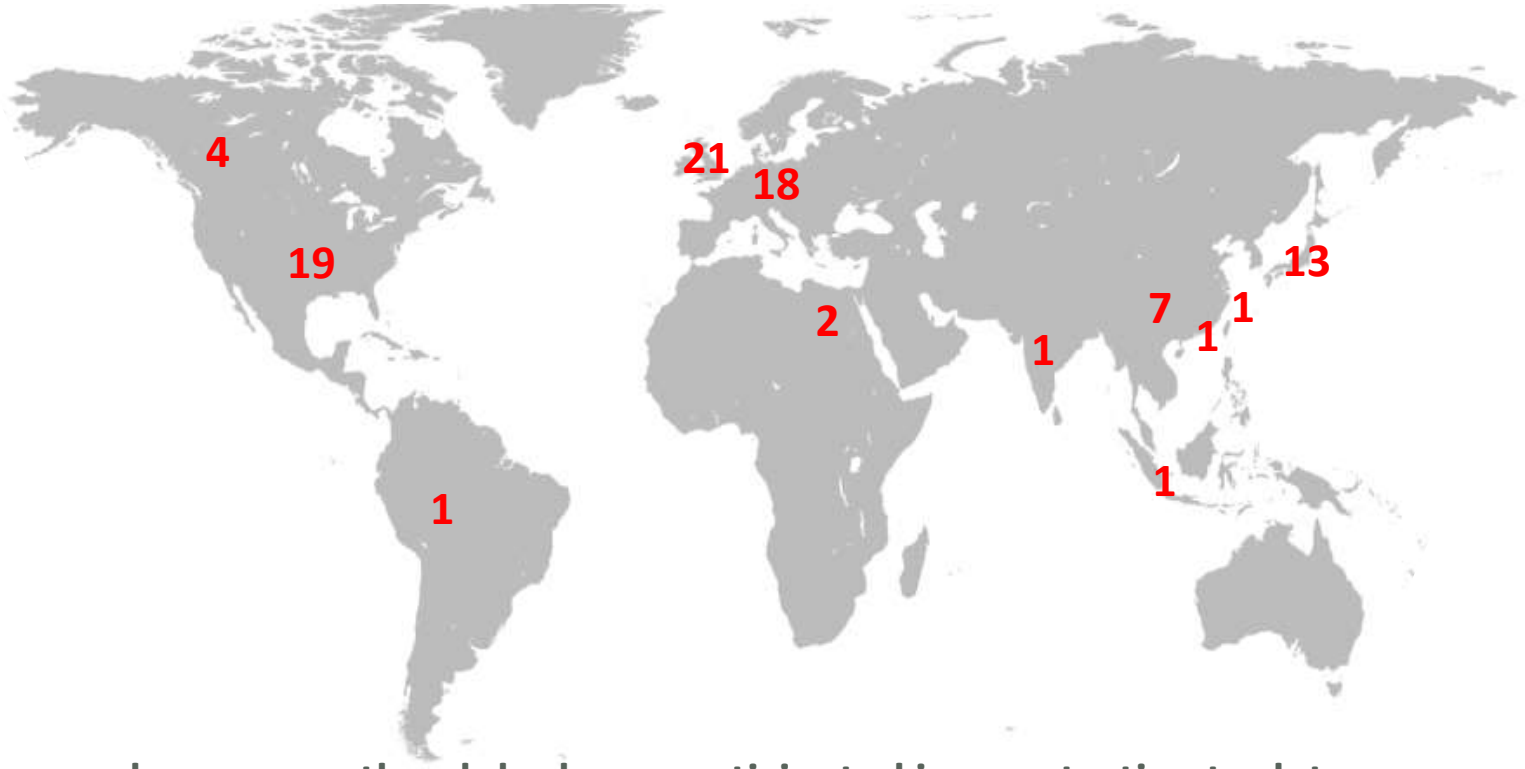
Nano at nano.nature.com provides highly indexed and structured information related to nanotechnology derived from high-impact journals and patents.

Nano combines the key features of



Nano is a user proven solution

- Early market research based on 218 online survey respondents and 28 in-depth phone interviews gave us the confidence to start this ambitious project. One general feedback is “Building a nanoscience-dedicated discovery tool is a great idea!”
- We have been conducting multiple rounds of user testing to ensure platform functionalities and features serve practical purposes and add values to the users.



89 nano researchers across the globe have participated in user testing to date

How Nano helps researchers?

Find nanotechnology information precisely without looking into the full text

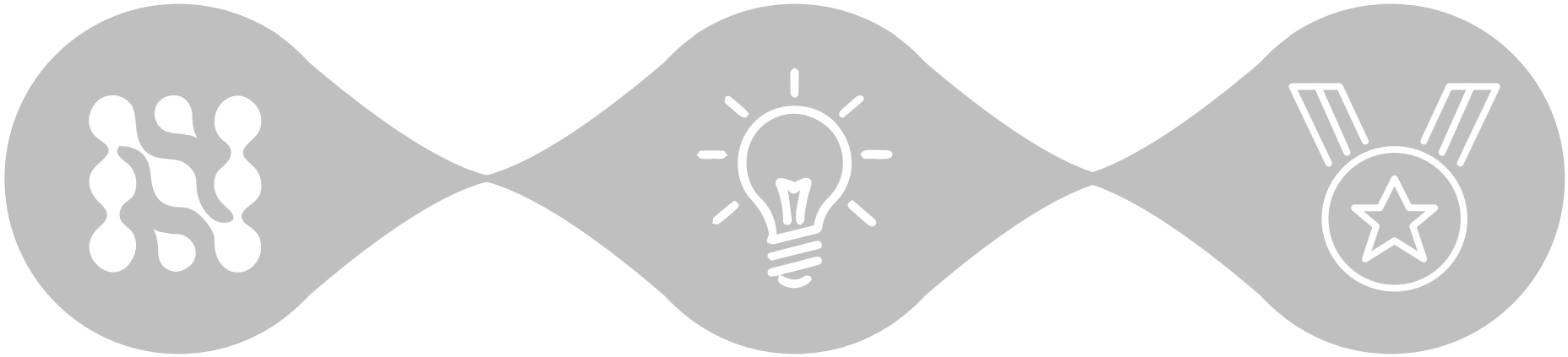
Information on similar nanomaterials is compiled into summaries from multiple sources

Preparation steps for nanomaterials can be easily found and visualized

Nanomaterials with specific properties and application can be quickly enlisted

What makes Nano unique?

Faster Insight

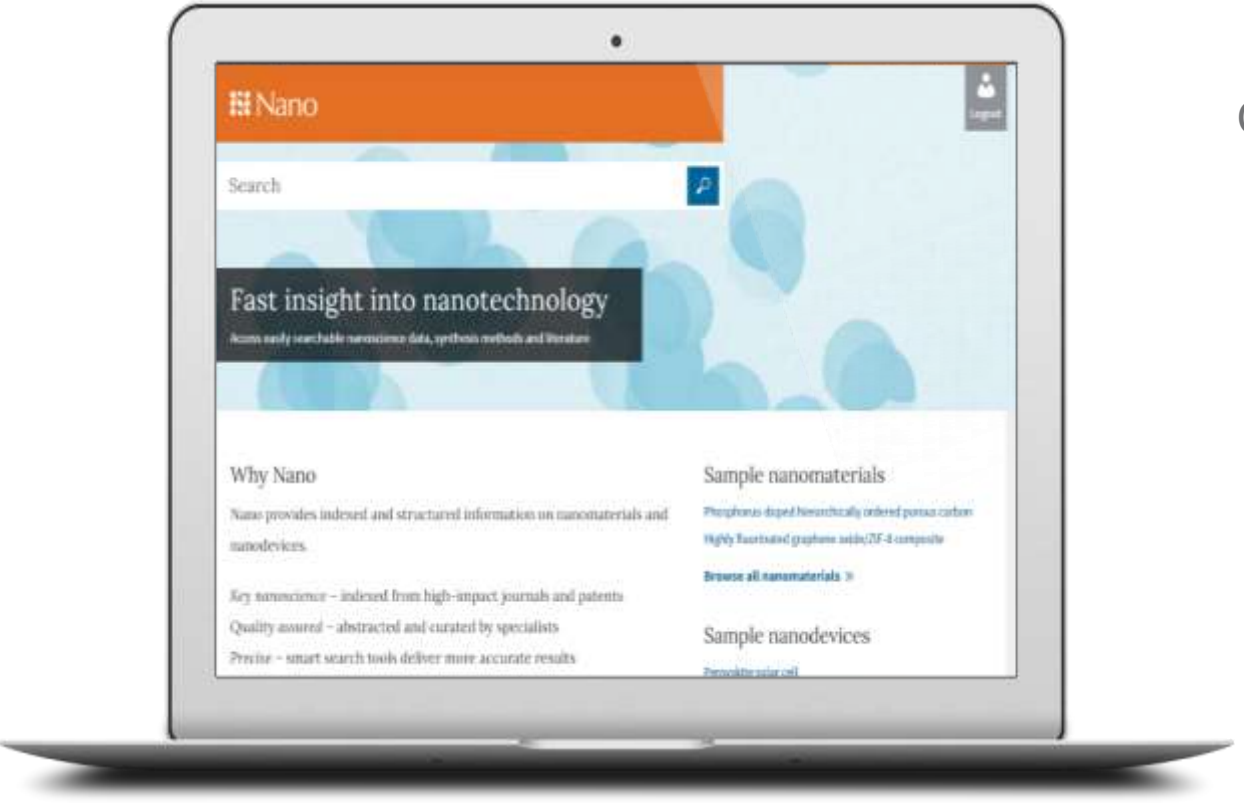


Nano Specific

Competitive Edge

Nano Specific

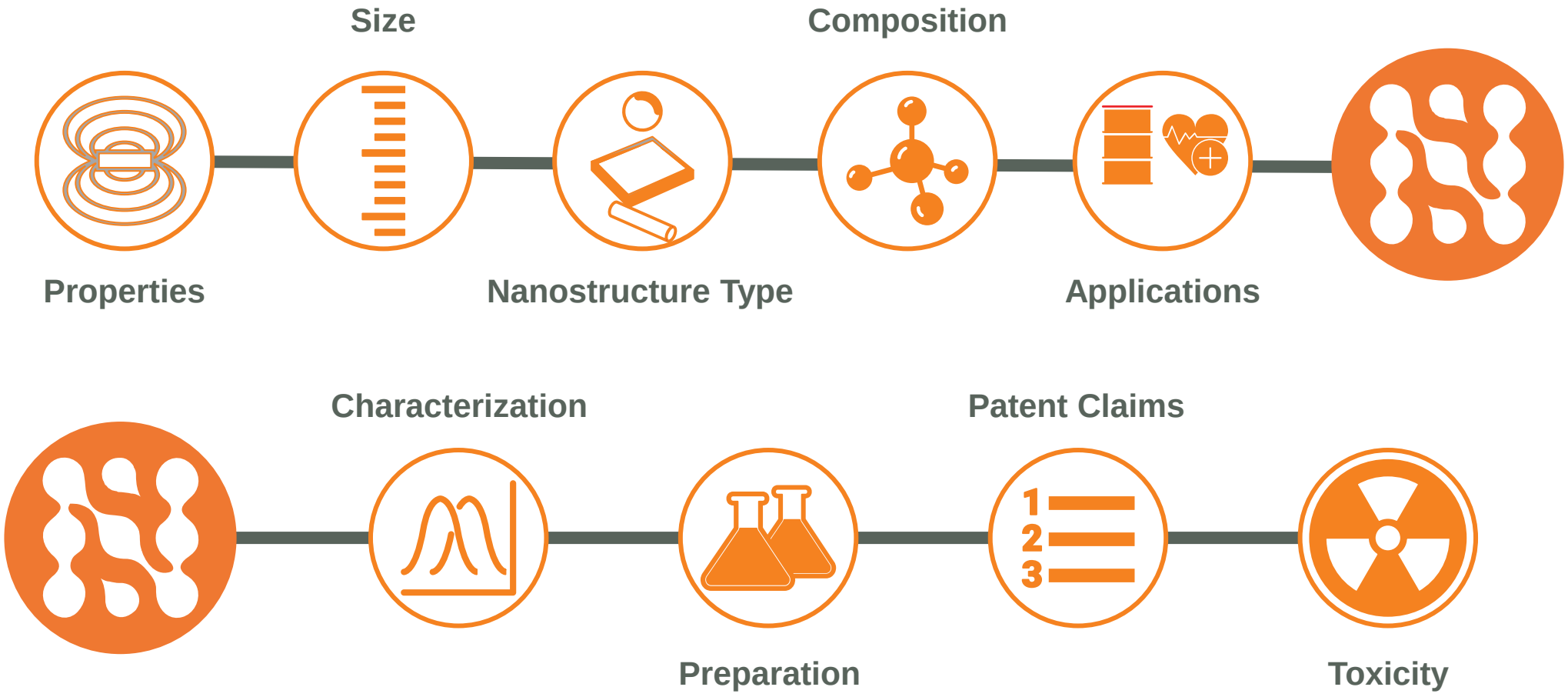
The only research solution covering nanomaterials.
There is no similar product on the market.



Offering unique functionalities

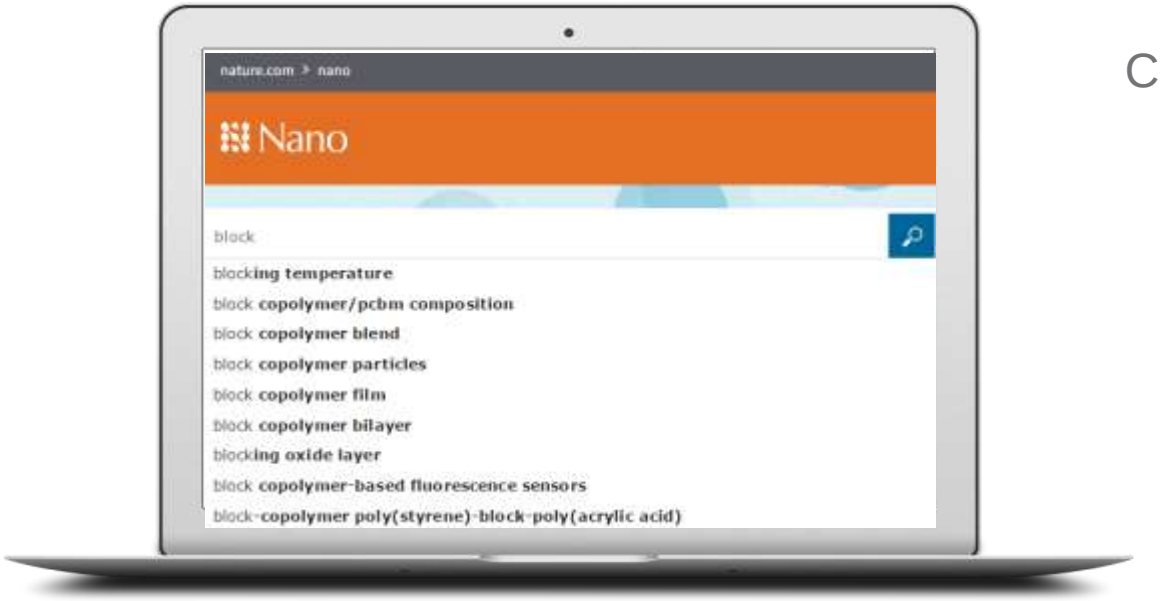
- Curated nanomaterial summaries
- Indexed data from a broad range of multidisciplinary relevant journals
- Search as precise as possible

A Profile Includes



Faster Insight

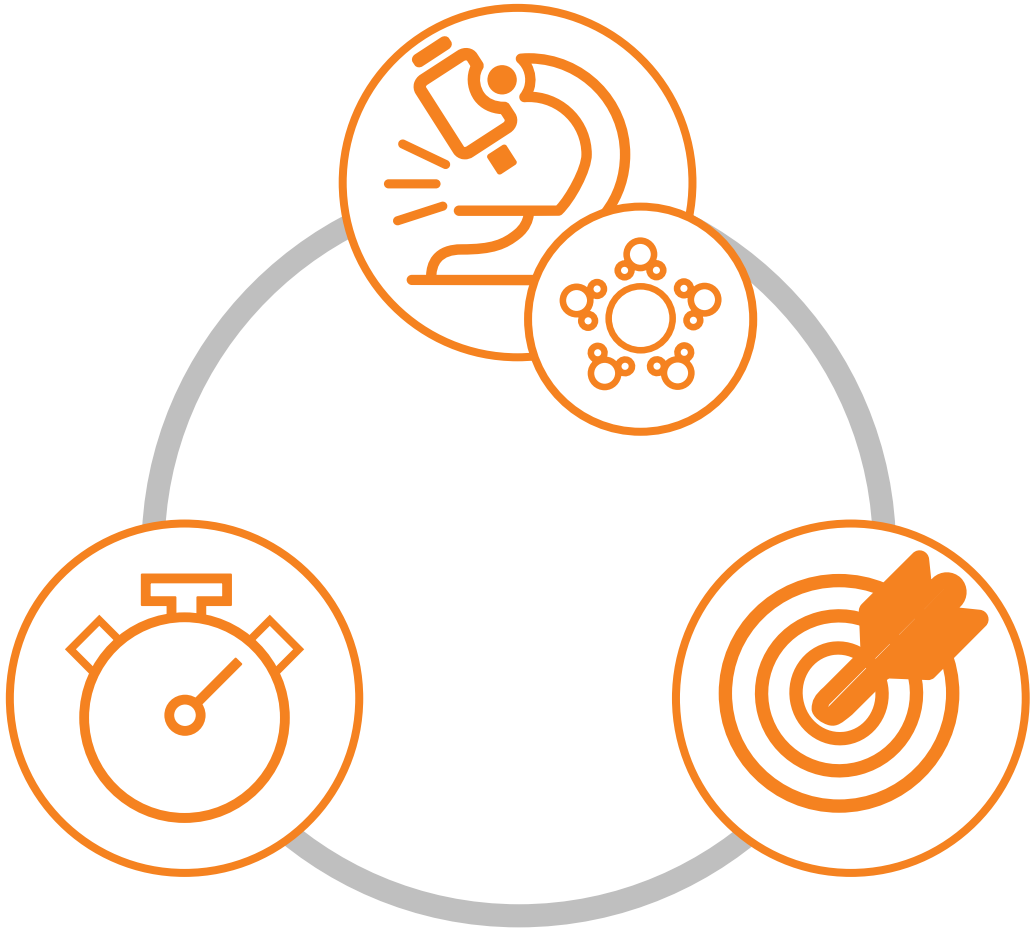
Centralized nanotech-related articles in one space



Curated summaries from **top journals** worldwide...

- Indexed data from a broad range of relevant journals
- Search as precise as possible
- Curated nanomaterial summaries

Your Competitive Edge



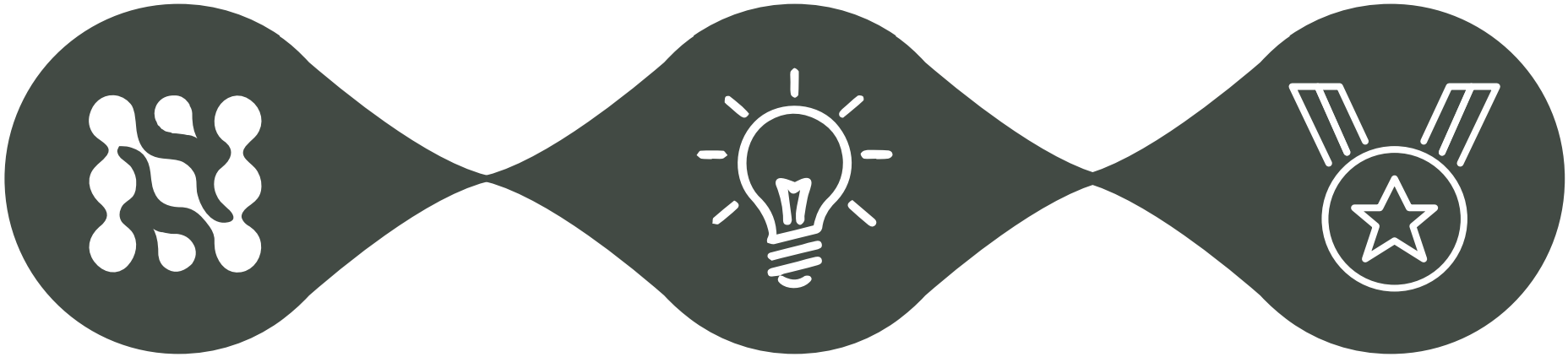
Keep up-to-date with new discoveries

Time saving

Very precise

This is why Nano is unique!

Faster Insight



Nano Specific

Competitive Edge

Thank You !

For more information, visit **nano.nature.com**.

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