# Supporting Biopharm Literature Research

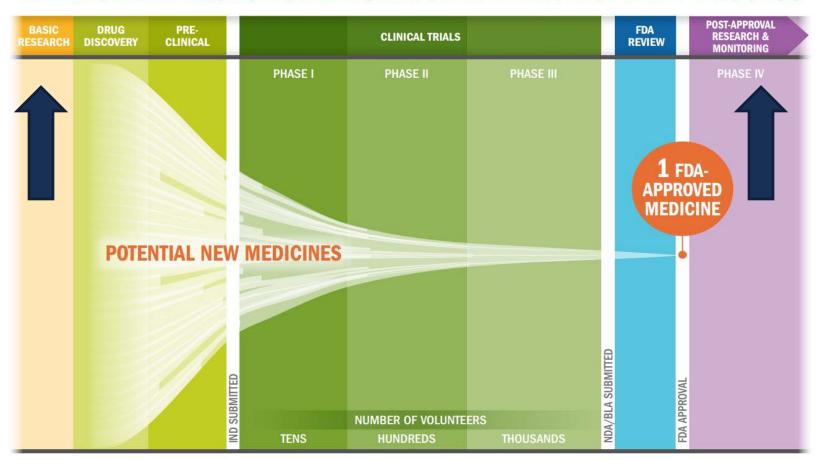
SLA; June 12, 2018; Baltimore

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### EBSCO Supports Literature Research in Biopharm

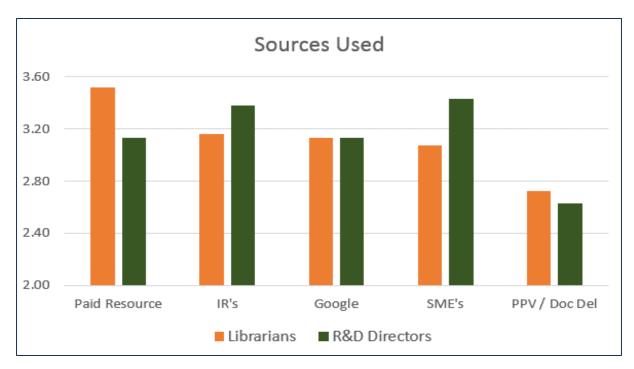
#### THE BIOPHARMACEUTICAL RESEARCH AND DEVELOPMENT PROCESS



Source: Pharmaceutical Research & Manufacturers of America (http://www.phrma.org/sites/default/files/pdf/rd\_brochure\_022307.pdf)



### EBSCO Survey of Librarians and R&D Directors



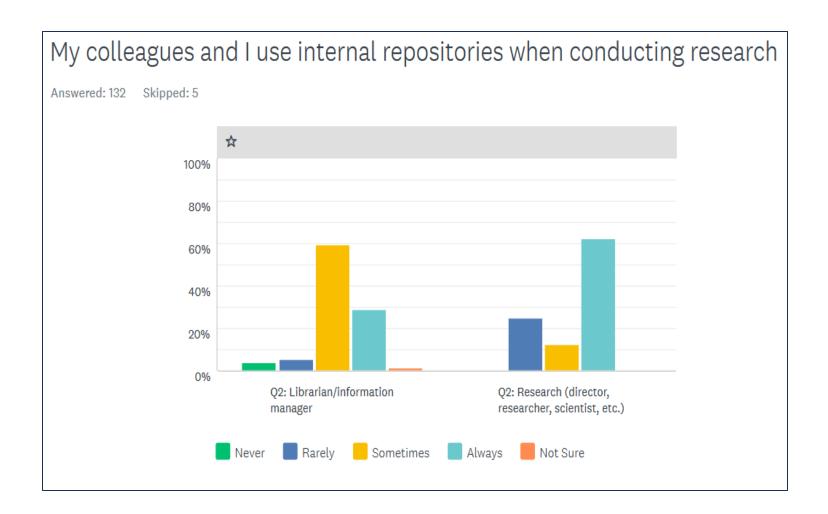
KEY: 4 = Always, 3 = Sometimes, 2 = Rarely, 1 = Never

- R&D professionals use Google as much as premium research products.
- R&D professionals value Internal Repositories (IR's) and Subject Matter Experts (SME's) more than Literature Resources (Paid and Google).

Source: EBSCO Survey of Librarians and R&D Professionals, February 2018



# EBSCO Survey: R&D Directors Value Internal Repositories





# EBSCO Survey: R&D Directors Value Subject Matter Expertise



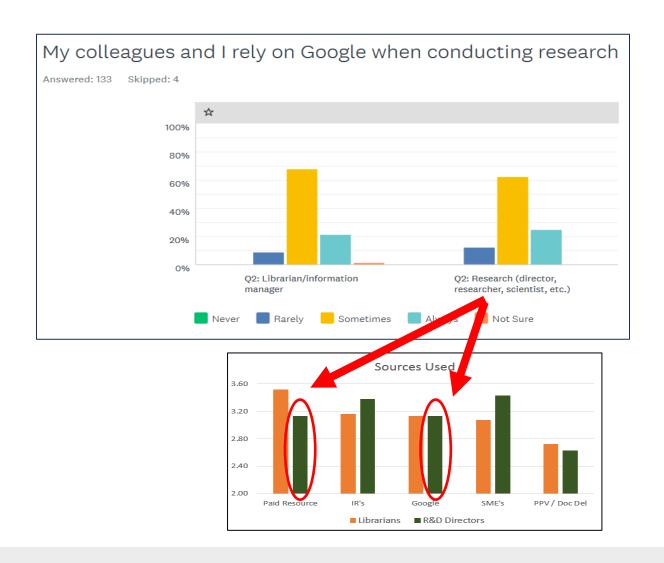


# EBSCO Survey: STM Full Text Is Critical for R&D Professionals

STM (scientific, technical, medical) journals (from publishers like Elsevier, IEEE, Wiley, Wolters Kluwer, etc.) are important to me and my colleagues Answered: 130 Skipped: 7 ☆ 100% 80% 60% 40% 20% 0% Q2: Librarian/information 02: Research (director, researcher, scientist, etc.) manager Rarely Sometimes Always Not Sure

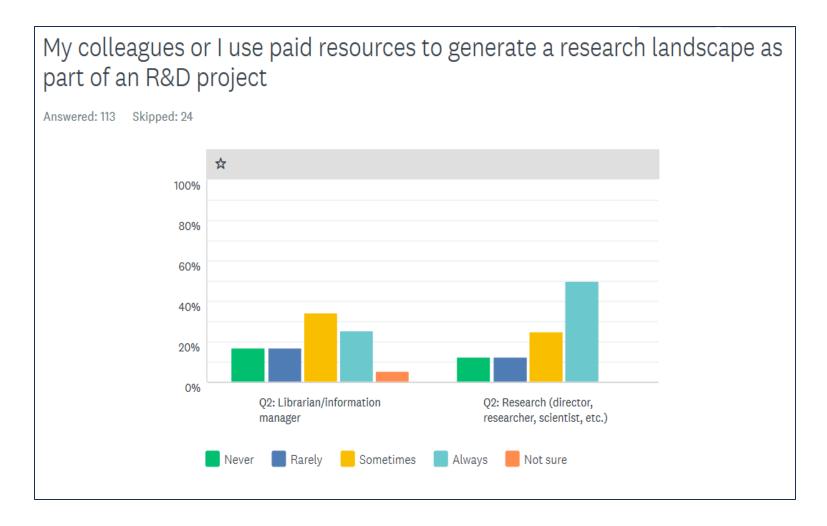


# EBSCO Survey: R&D Professionals Consider Google Equally Valuable to Curated Databases



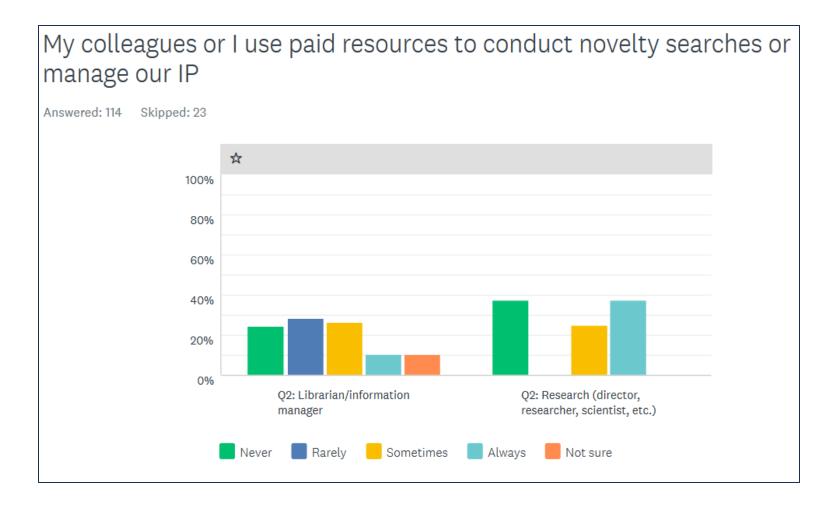


# EBSCO Survey: Literature Review and Research Landscape Dominant R&D Use





### EBSCO Survey: R&D Focuses on Novelty





# Managers (Inc. R&D Directors) Want Younger Researchers to be Solid Researchers

The National Association of Colleges & Employers (NACE) surveyed US employers to determine how the employers valued ten skills that they wanted undergraduates to know. Respondents rated the top five skills:

- 1. "ability to work in a team structure"
- 2. "ability to make decisions and solve problems"
- 3. "verbally communicate with persons inside and outside the organization"
- 4. "ability to plan and prioritize work"
- 5. "obtaining and processing information"

Source: National Association of Colleges & Employers, NACE 2015 Job Outlook, 2016



# Information Literacy Skills Enable Sound Literature Research

The ACRL describes the information literate person as mastering a process:

- 1. determines the nature and extent of the information needed;
- 2. accesses needed information effectively and efficiently;
- 3. evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system;
- 4. individually or as a member of a group, uses information effectively to accomplish a specific purpose; and
- 5. understands the economic, legal, and social issues surrounding the use of information and accesses and uses information ethically and legally

Source: ACRL, Framework for Information Literacy in Higher Education. 2014



### Workplace Information Literacy Skills Echo ACRL

Kiron and Barham defined the workplace information literacy process as:

- 1. determining information attributes;
- 2. evaluating the source of the information;
- 3. estimating value and total cost of use for the information;
- 4. devising an information use strategy;
- filtering and eliminating information sources that are not relevant to the current project; and
- 6. presenting the findings in a workflow-appropriate and ethical format.

Source: Kiron, J., & Barham, L. (2005). Information literacy in the workplace. Australian Library Journal, 54(4), 365-376



# The Problem: Managers Think Younger Researchers Can't Do It

- Project Information Literacy (PIL) interviewed managers about information literacy skills of new employees. Managers identified four competencies that their new hires lack.
  - 1. "engaging team members in the research process"
  - 2. "retrieving information from a variety of formats"
  - 3. "finding patterns and making connections"
  - 4. "taking a deep dive into the information reservoir"

Source: Head, A. (2012). *Project Information Literacy: How college graduates solve information problems once they join the workplace.* Indianapolis, IA: ACRL



# The Result: Sub-optimal Literature Research by Younger R&D Staff

- Managers express frustration that their staff are not information literate but they do not identify any mechanisms to address that shortcoming
- Indeed, managers do not even identify the term "information literacy"
  - No shared definition for "information literacy" in the workplace
  - No single body (like ACRL) and reinforcing authority (like accreditation boards) to define, and mandate common information literacy practices

Sources: Head, A., Van Hock, M., Eschler, J. & Fullerton, S. (2013). What information competencies matter in today's workplace? *Library & Information Research*, *37*(114), 74-104.



### What To Do: Librarians

- Opportunity to define and promote professional "information literacy" competencies in literature research and pharmacovigilance
- Demonstrate benefit to R&D directors, like other managers, of employing robust information literacy in literature search
  - Better results
  - Less wasted time
  - Thorough review of all relevant, qualified sources



### What To Do: EBSCO

- Create a portal that supports information literacy-driven R&D literature research
- Provide access to curated content
- Enable collaboration & sharing
- Map content to work flows
- Handle compliance and copyright issues
- Manage costs via administrative reports and content usage analysis



# EBSCO Biotechnology Portal: Tool for Pharma Literature Research

- The Biotechnology Portal supports drug-development workflows:
  - Research & Discovery
    - Create research landscapes around new compounds and molecules
    - Discover unanticipated opportunities

### Competitive Intelligence

- Track competitors and understand current state of research landscape by seeing what is in clinical trial
- Monitor patents, conference proceedings, newsletters, and more

### Pharmacovigilance

 Monitoring EBSCO's vast collection of STM and trade literature, as well as established indexes, that reference adverse events and other developments



# EBSCO BioPharm Content Sources: Full Text & Leading Research Databases

- EBSCO Full Text Collections
  - Biotechnology Source
  - Biomedical Resource Center
  - Business Source Corporate Plus
  - Dynamed
  - MEDLINE Complete
  - CINAHL Complete
  - SPORTDiscus with Full Text
  - Dentistry & Oral Sciences Source
  - Rehabilitation & Sports Medicine Source
  - eBook Clinical & Nursing Collections

- EBSCO Licensed Databases
  - Biosis
  - International Pharmaceutical Abstracts
  - AgeLine
  - AMFD
  - Cochrane Central Registry of Controlled Trials
  - Cochrane Clinical Answers
  - Cochrane Database of Systematic Reviews
  - Cochrane Methodology Register
  - Global Patent Reference Center
  - PsycINFO

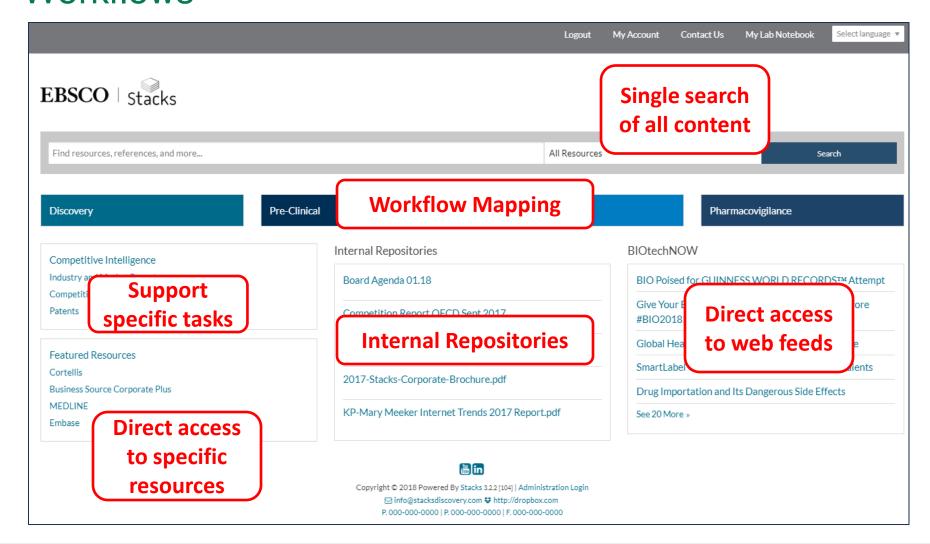


# EBSCO BioPharm Content Sources: EBSCO Discovery Service (EDS)

- EBSCO Discovery Index (1 Billion records and growing, updated daily)
- Select EDS Content Partners (found in the index)
  - SCOPUS
  - WoS
  - PubMED
  - Animal Pharm (Informa)
  - clinicaltrials.gov (NLM)
  - Cochrane Database of Systematic Reviews (John Wiley & Sons)
  - IN VIVO (Informa)
  - Medtech Insight Reports (Informa)
  - Orange Book (FDA)
  - Oxford Medical Online (Oxford University Press)
  - Pink Sheet (Informa)
  - SCRIP Intelligence (Informa)
  - TOXNET (NLM)

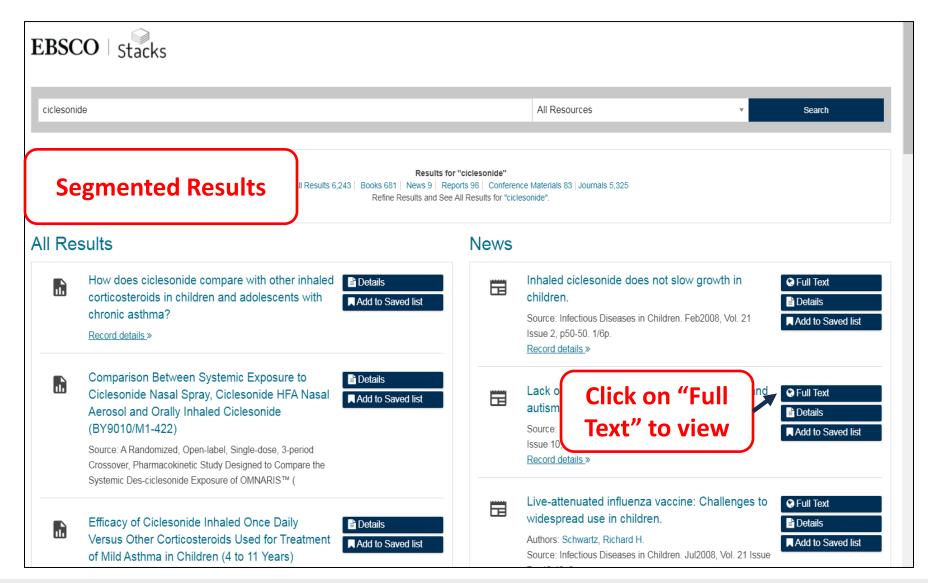


# EBSCO Biotechnology Portal Maps Research Workflows





### Research/Prediscovery Results Example





### Research/Prediscovery Results Full Text Example

Hot Topics in Respiratory Medicine 2013;23:7-12

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### Ciclesonide delivery in the small airways: serving a newfound need

Alan G. Kaplan

### **Immediate Access to Full Text**

Once considered the "quiet zone" of the lungs, the small airways are now known to be an important site of airway resistance and inflammatory response. Evidence of a pronounced immune response and reduced steroid responsiveness during the night in the small airways of patients with nocturnal asthma suggests that they may be especially important in this hard-to-treat condition. Until recently, devices delivering inhaled corticosteroids could not effectively reach the small airways; typically, just 30% of the medication reached this target. The advent of hydrofluoroalkane (HFA) propellants delivering extra-fine particles has solved this problem. Ciclesonide is a nonhalogenated inhaled glucocorticoid that is delivered in a fine particle spray via an HFA-pressurized metereddose inhaler. Because it is only converted into its active metabolite in the lungs, ciclesonide attenuates the risk of oropharyngeal side effects. It has not been shown to effect hypothalamic-pituitary-adrenal axis function, thanks to extensive first-pass metabolism and it being highly protein-bound in serum.

#### THE BURDEN OF ASTHMA

Asthma, a chronic lung disease in which the airway becomes inflamed and obstructed, currently affects an estimated 235 million people worldwide and its prevalence is increasing [1,2]. In Canada, it is the leading cause of chronic illness in children and accounts for a significant proportion of pediatric emergency department visits and hospital admissions [3]. Asthma places an important financial burden on the health care system. A recent prevalence-based cost-of-illness study, which considered data from patients 30 to 54 years of age with persistent asthma in 11 European countries, estimated the total cost of asthma in this population alone to be 4.3 billion Euros (5.7 billion dollars) [4]. The main driver, accounting for close to two thirds of this figure, was indirect costs such as that of lost working days.

Great strides have been made over the last 15 years in the diagnosis and effective management of asthma, due in part to the development and widespread use of evidence-based national and international guidelines [5-7], but there is still work to be done. Asthma control remains suboptimal worldwide, perhaps in part because patients often overestimate their level of control [8-13].

Hot Topics in Respiratory Medicine - Volume 8 · Issue 23 · Year 2013 C FBCommunication - Modena (Italy)

Cite this article as:

Kaplan AG. Ciclesonide delivery in the small airways: serving a newfound need. Hot Topics Respir Med 2013;8(23):7-12. F-mail: For4kids@gmail.com

#### **EFFICACY AND EFFECTIVENESS OF INHALED** CORTICOSTEROIDS

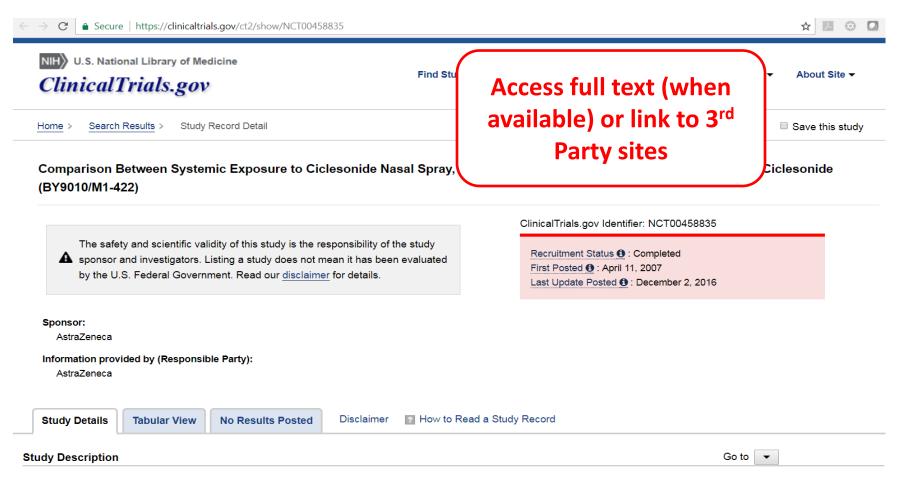
Inhaled corticosteroids (ICSs) are currently recommended worldwide as the most effective therapy for controlling the symptoms of persistent asthma [6,14-16]. By significantly reducing airway inflammation and hyperresponsiveness, ICSs have been shown to improve lung function and reduce asthma symptoms [6,17-20]. This, in turn, reduces the number of acute episodes requiring urgent care and reduces the need for rescue medication [21,22]. Not surprisingly, ICSs have also been associated with a significant increase in quality of life [23].

However, various factors related to patients, physicians, and the medication itself may reduce the effectiveness of ICSs by preventing the medication from being taken when needed or as prescribed and from reaching the areas where it is most needed. Patients may have misconceptions or concerns about the use of corticosteroids that prevent them from starting or sticking with treatment. Even if patients embrace corticosteroid therapy, they may use the inhaler incorrectly, may experience side effects that lead to discontinuation of treatment, or may underestimate the severity of residual symptoms once treatment has begun. Physicians can enable all of these by failing to provide sufficient patient education or to follow up sufficiently closely. Last, the ICS itself may have limited effectiveness if it cannot reach the parts of the lungs that are most heavily affected, or does not do so at a sufficiently high concentration.

Adequate control of nocturnal asthma and severe asthma has proven especially elusive. Patients with these conditions may have special needs that are not being met by current ICS treatment.



### Link Out to the Source Content



Brief Summary:

The purpose of this study is to compare the systemic des-ciclesonide exposure of OMNARIS™ (ciclesonide) nasal spray, ciclesonide HFA nasal aerosol, and orally inhaled ciclesonide HFA-metered-dose inhaler (MDI). The administration of the study medication will be as follows: three single doses, separated by a wash-out period. The study will provide further data on the safety and



## For more information about EBSCO Biotechnology Literature Research Solutions, please contact:

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### Thank You

