

ARGENTA, A GALAPAGOS COMPANY

CASE STUDY: DRUG DISCOVERY PROCESS MADE EASIER WITH THE RELEVANT SEARCH RESULTS FROM THOMSON REUTERS INTEGRITY



ABOUT THE COMPANY

Argenta, a Galapagos Company, is a specialist company with extensive industry-based medicinal chemistry experience that provides contract small-molecule drug discovery services including hit identification, hit-to-lead, and lead optimization, across all therapeutic areas and all druggable target classes. Argenta's customer base includes large and medium-sized pharmaceutical firms, small biotech companies, academic spinouts, and charitable organizations.

In developing new opportunities for their drug discovery services, Argenta works with a client to prepare a detailed drug discovery proposal based around the given target or therapeutic area and the available resources. The proposal takes into consideration the client's starting point, timeframes and objectives.

Argenta's challenge is to identify the best possible opportunities to pursue, which is achieved through a thorough understanding of the disease area, target class and prior art coupled with the necessary medicinal chemistry experience to propose a novel discovery strategy, so their customers can confidently decide to proceed with the work.

Because determining druggability early in the drug discovery process is so crucial in identifying real leads, Argenta turns to *Thomson Reuters Integrity*SM to make better-informed decisions. *Integrity* includes integrated biology, chemistry, and pharmacology data on more than 330,000 compounds with demonstrated biological activity and over 145,000 patent family records. Discovery companies like Argenta use it to empower their discovery activities and support decision making.

IDENTIFYING INFORMATION AROUND TARGETS

In Argenta's process, the biological target selected by the client is thoroughly examined against the following criteria:

1. Is this a known druggable target? Are there small molecules acting against it?
2. Are there patents for these and what do the patents cover?
3. How many patents are there and from which companies?
4. What's currently in the clinic? What is the status of that work?
5. What may be possible weaknesses in compounds already in the clinic?

"I always use Integrity first in my search for information," says Nick Ray, Director of Chemistry. **"It would be very difficult to find rapidly the answers to the questions we ask without it. I wouldn't have any confidence pulling that information through other sources."**

PINPOINTING NOVEL CHEMISTRY

Argenta finds the manual data indexing in *Integrity* an invaluable tool in gathering relevant patent data and narrowing down a reading list. *"In other databases, unless there's something obvious in the patent name or within the patent abstract, it's almost impossible to find the right level of information,"* says Nick. *"For example, in another database, searching for an agonist of target X, you might get over 30,000 results, most with little relevance, that you would then need to filter down."*

Armed with information around the chemistry of a particular target, Nick summarizes the specific patents he retrieves, pulling out the structure and key information. *"It's a matter of reading the literature and finding out the state of the art,"* says Nick. *"I need to know the function of a compound (for example, agonist or antagonist, reversible or irreversible inhibitor, and its in vitro biological and pharmacological activity, and ideally a structure. Having key compounds from a patent identified saves a huge amount of leg-work."*

Using these summaries, Nick identifies unique areas to work in. He hopes to uncover something that hasn't been done before and has tractability to develop a chemical starting point. *"To finalize our development candidates, we need to make sure that they will work better than anything that's already out there,"* says Nick. *"We use Integrity to identify weaknesses in the existing compounds and find out why something has failed in the clinic. The candidates must have some unique selling point that justifies their development."*

When a proposal has been accepted and the project is initiated, Argenta's team continues to use *Integrity* to review disease briefings and keep abreast of the latest competitor intelligence to make sure the project leaders stay ahead of the game.

WINNING BUSINESS WITH SOLID RESEARCH

Argenta found *Integrity* particularly invaluable when drawing up a proposal to develop an antiobesity drug. CORT-108297 is a selective glucocorticoid receptor antagonist to prevent and reverse weight gain caused by treatment with multiple antipsychotic drug regimens. Nick says *"We won the business and now this drug is in Phase I"*.

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