TExpress

SciBite
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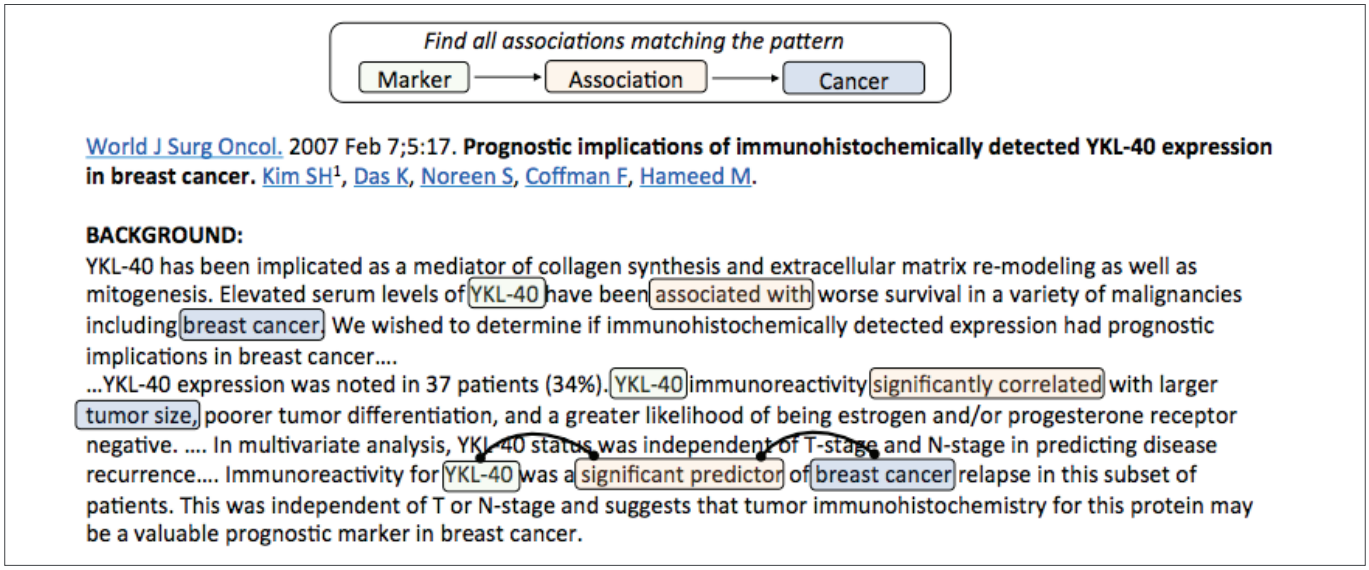
Datasheet

Identifying semantic patterns in text



- **CUSTOMIZABLE:** identifies a huge variety of patterns from text
- **POWERFUL:** use "bundles" of complementary patterns to cover all possibilities
- **DYNAMIC:** optimise your patterns on the user interface before using the API

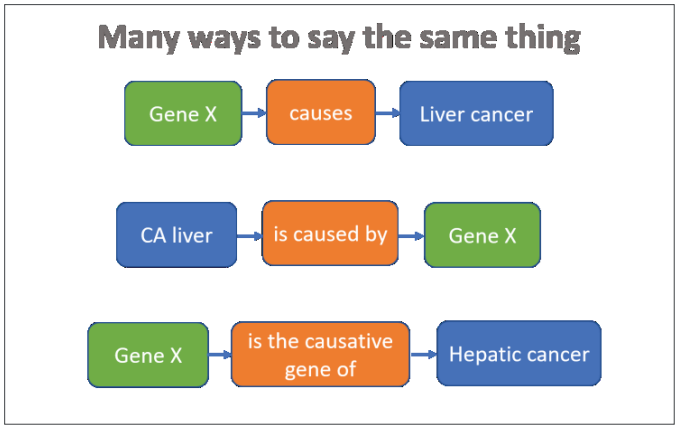
'Close, but not close enough'

Imagine you are interested in gene X and disease D, and would like to look for articles describing the gene's expression in disease cases. In a search box, you type in the gene's name, the disease term and the word "expressed", but disappointingly the results only list articles in which the terms merely co-occur in any order. Sounds familiar?

Biomedical text often describesentities (e.g. genes, diseases) in relation to one another (e.g. causation, repression,treatment). To aid knowledge discovery, such patterns of entities and relationships need to be captured semantically. Wouldn't it be nice if a semantic search engine "understands" your query and returns hits, e.g. "gene X is highly expressed in disease D"?

Relationships matter

TExpress is an add-on module of TERMite, SciBite's ultra-fast named entity recognition (NER) engine,to search for patterns of entities and verbs in text. Thanks to our flagship library of manually curated vocabularies behind TERMite, TExpress uesrs can tap into the extensive coverage of entities or verbs and their synonyms to uncover less obvious matches.



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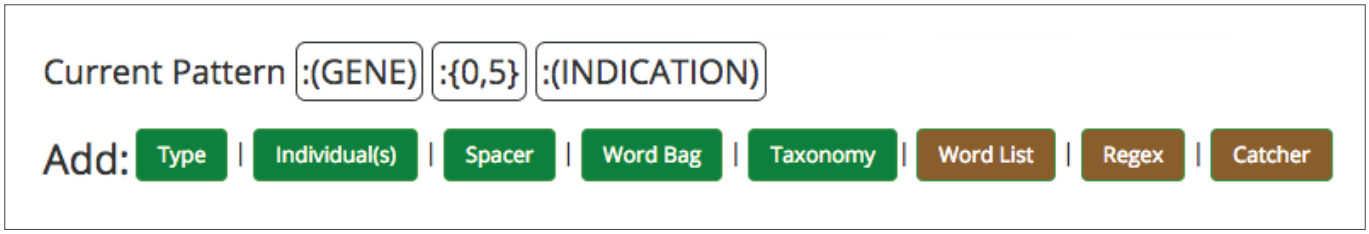
TExpress Pattern Builder: create custom lexical patterns



Defining your own patterns

tExpress, which stands for "TERMite Expressions", screens the entities that TERMite extracted by default with your patternsof interest. To define your first pattern, try the graphical pattern builder on the TExpress interface.

For data scientists who are familiar with regular expressions and JSON, once you are comfortable with the syntax, you can try creating patterns programmatically too.

Multiple patterns? Use bundles!

to cover the variance in how relationships between entities can be described in text, a complementary collection of patterns is more effective than a standalone pattern. In TExpress, such collections can be saved neatly as "bundles", which can be reused in future queries.

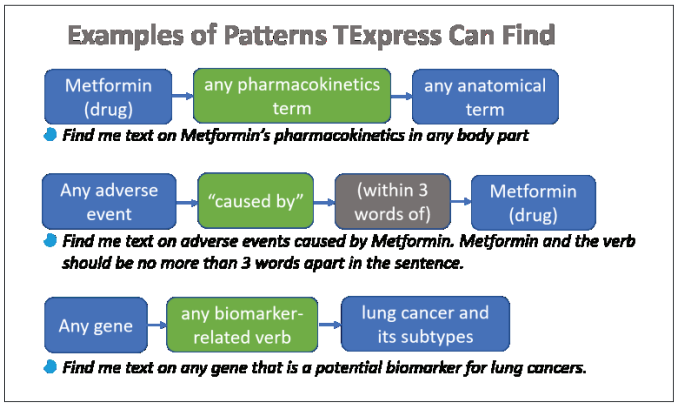
Ready-to-use bundles for biomarker identification, adverse event detection and phenotypic extraction are included to get you started.

Dynamic and fast

tExpress owes its speed and great deployment flexibility to the back-end TERMite engine.You can access TExpress via the user interface, the command line, or your own application by firing API calls, just like you would with TERMite.

Our customers particularly enjoy the dynamic user experience. To adapt to changing business requirements, they often experiment with patterns on the user interface before rolling them out to a large corpus, and run various custom post- processing scripts on the TExpress output as part of the TExpress API call.

Whatever your use case, from simple sentence co-occurrence search to detecting specific events, try TExpress today and new insights could be just a pattern or bundle away!



About SciBite

SciBite's data-first, semantic analytics software is for those who want to innovate and get more from their data. At SciBite we believe data fuels discovery and we are leading the way with our pioneering infrastructure that combines the latest in machine learning with an ontology-led approach to unlock the value of scientific content. Supporting the world's leading scientific organisations with use-cases from discovery through to development, SciBite's suite of fast, flexible, deployable API technologies empower our customers, making it a critical component in scientific, data-led strategies. Contact us to find out how we can help you get more from your data.

To learn how SciBite can unlock the value of your data, speak to one of our experts today or email us at contact@scibite.com

Head Office:
SciBite Limited
BioData Innovation Centre
Wellcome Genome Campus
Hinxton, Cambridge CB10 1DR
United Kingdom

www.scibite.com
contact@scibite.com
LinkedIn: SciBite
Twitter: @SciBite
+44 (0)1223 786 129

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