Importance of curation in Reactome pathways and layout optimization using Lipid Metabolism as example

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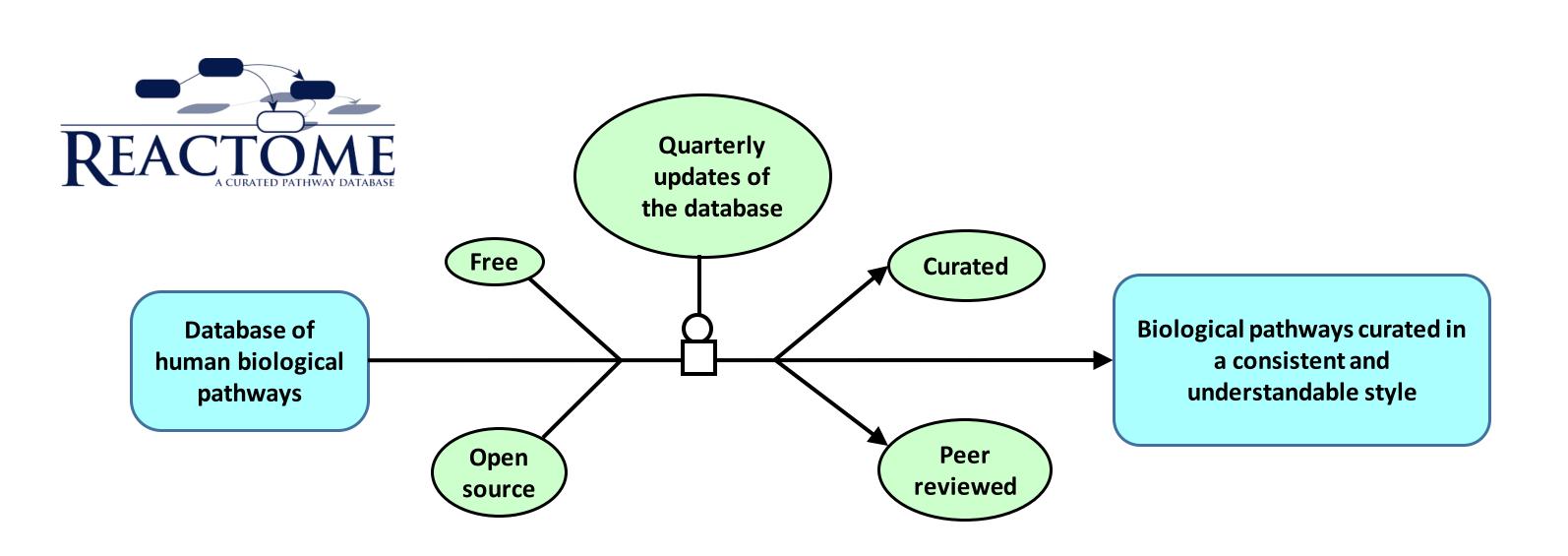
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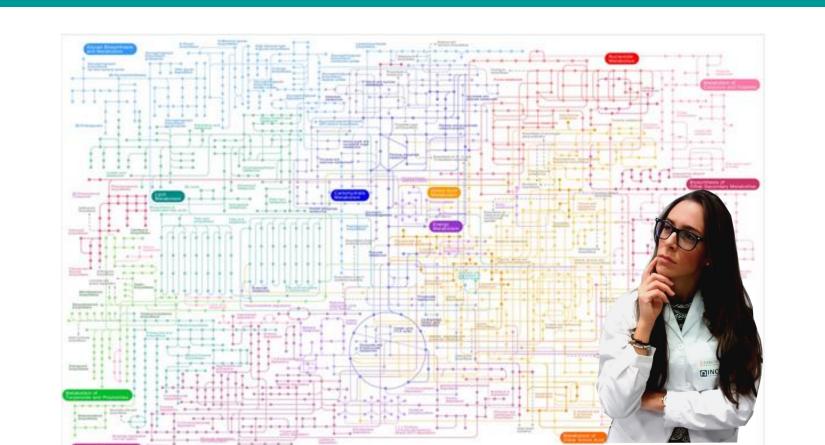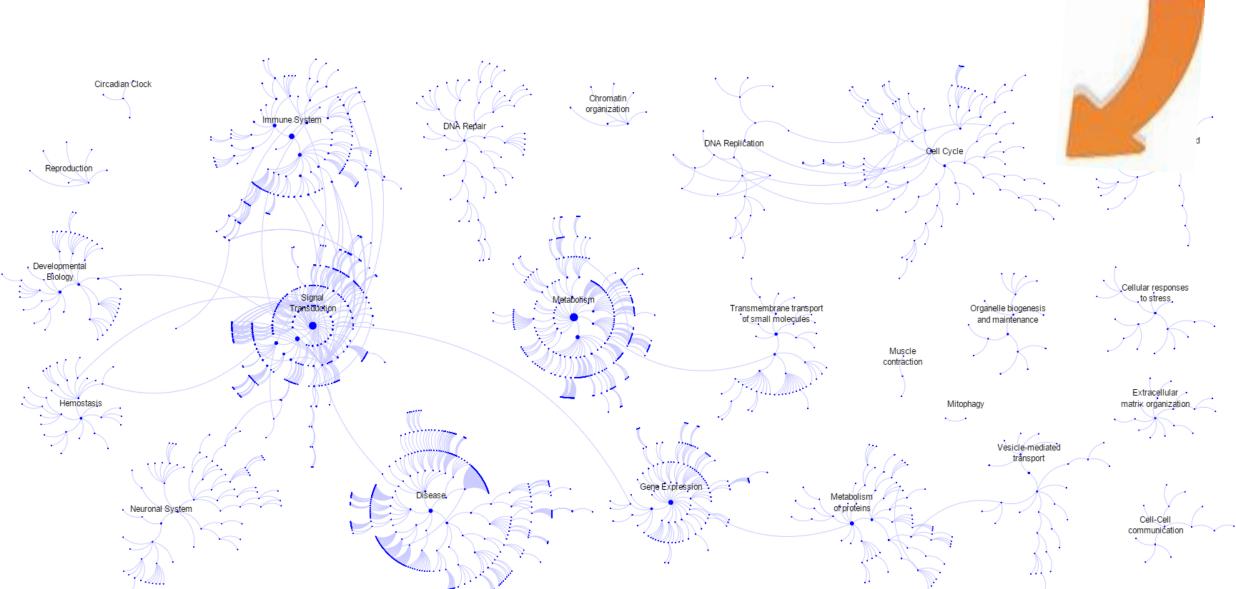
BIOLOGICAL DATA ANNOTATION

Reactome's graphical representation of biochemical and cellular pathway processes is underpinned by a published data model that facilitates the storage, reuse, exchange, and visualization of all kinds of biological process.

To curate this knowledge, Reactome consults with expert biologists to separate the well-established consensus from the hypothetical or contentious. Reactome's curated pathway events are supported by published experimental verification. This reliable data is extensively annotated with metadata such as GO molecular functions and accessions from many external sources including UniProt and ChEBI.

The result is a rigourously-defined computational representation of the biological pathway with an interactive graphical representation and data downloads available in standard formats.
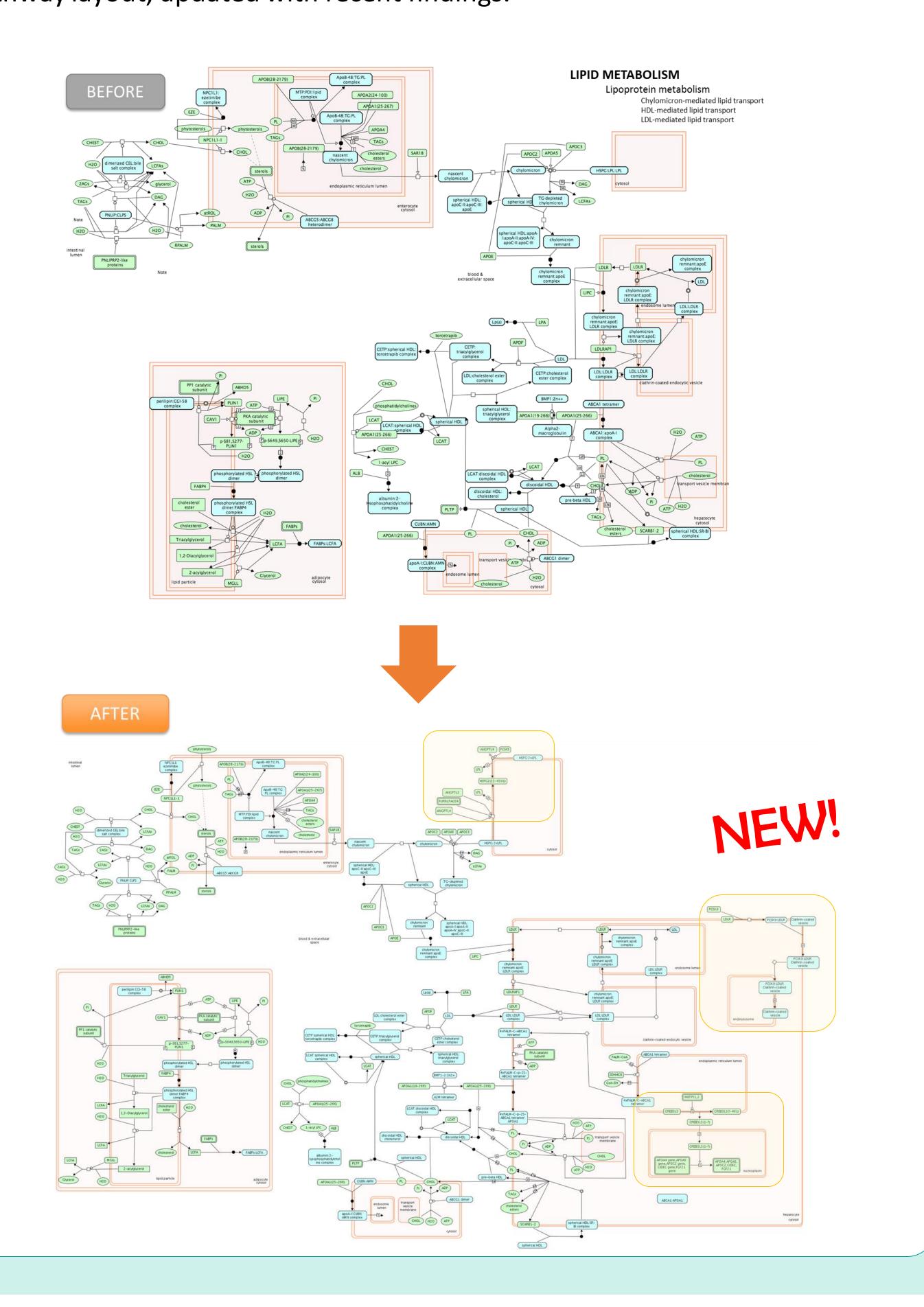

PATHWAY OPTIMIZATION

Reactome strives to refine and improve our graphical pathway representations, to reduce 'clutter' and make them more intuitive.

Here we present a fully reworked and optimized "Lipid Metabolism" pathway layout, updated with recent findings.

STANDARD REPRESENTATION

Reactome includes graphical illustrations of broad biological processes that can help scientists understand the relationship between process and pathway.

Where possible the illustration and pathway diagram are organized with a similar layout to aid comprehension.