## What makes SciFinder<sup>n</sup> different and unique. List of features that are different or new compared to SciFinder.

- First and foremost, SF-n is a completely different tool that is built from scratch. It is not
  "an upgrade" or a "new version" of SciFinder. This is easily seen looking at modern
  features like touchpad friendliness, multiple windows support, interactive filtering, recall
  of your entire search history, type-along-suggestions and removal of system limits. SF-n
  is based on a complete architectural change in the CAS organization that took several
  years and several hundred developers to complete.
- "Agile" development of SciFinder-n. SciFinder-n is a fully functional tool that also undergoes rapid development based on market needs and user feedback.
- The philosophy of SF-n is to bring the best answer to the user first and save precious time that normally would be wasted browsing through answer sets and patent records. This is done by advanced **relevance ranking** algorithms and a different datastructure in the CASREACT database (with reactions). SF-n is not sacrificing the principle of high recall for best ranking. SF-n will still give users a comprehensive and complete answer set.
- SF-n will give users access to PatentPak. PatentPak is a collection of patent documents from 31 organizations in a cleaned and layered converted PDF format. These documents are in their original languages. PatentPak goes well back into the 90'ies for some countries and organizations. Most importantly with PatentPak is the "Viewer" or the mark-ups. With the Viewer users of SF-n can link directly into the location of the chemistry in each patent. The mark-ups are produced during the editorial process by our colleagues that intellectual index these patents for new chemistry. Mark-ups are usually from either patent examples or patent claims or both. They will also include intermediates and starting materials. Ideally, PatentPak saves users for tons of time locating and reading patent information.
- SciFinder-n opens for truncated searching with a "\*" after topics, reactions or substances. This will for example provide access to related biomolecules, unspecific derivatives or otherwise unrecorded spelling variations. This opens for searching better in the Regulatory landscape, searching for enzymes or polymers. The "\*" also works imbedded in words (Mu\*ller, Anton will find both Anton Muller, Anton Mueller and Anton Müller).
- SF-n contains access to MethodsNow Synthesis that is a collection of synthetic protocols
  from many important publishers going back to 2000 (including Elsevier, Wiley and RCS).
  MethodsNow can be accessed by searching for reactions and filter on Experimental
  Protocols. The protocols are in bullet points stepwise and contains information about
  scale, purity and validation data (if provided). Reactants and other compounds are all
  hyperlinked to extra information.
- Citations in scientific literature and patents serve to unify and focus the scientific discourse. SciFinder-n displays a "Citation map" on the document level with onward and backward citations. Users of this function can benefit to easier find new partners for research projects or simply to find "hidden" literature. Using an answer with a "best"

- ranked relevance with a citation map will often produce a snapshot of science in question.
- The Markush searching in the Marpat database differs a lot from SF-web to SF-n. In the classic SciFinder a user will search for a compound but get a result as a list of patent references. In SF-n a user will see an assembled Markush structure with a reference to actual claim(s). Again, this is a major time saver for people considering freedom to operate. Users can also setup alerts in Marpat in SF-n. Match levels are still fixed in SF-n.
- For regulatory chemistry searching SF-n is a huge leap forward. The truncated search helps regulatory officers to easily identify compounds by chemical name search and after this the compounds that appear on an international or national chemical list can be filtered.
- Loading of new datasets will only happen to SciFinder-n. An example of this is the recent addition of >300.000 H1NMR spectra from Enamine.
- Download of SD and SDX files enhanced with property data and up to 1000 record limit.
- MethodsNow Analysis (analytical chemistry protocols) is a standalone tool that requires a separate license. However, SciFinder-n allows users to filter answer sets according to presence of MethodsNow protocols. Future filters will also include access to coming CAS Solutions (Formulus being such a solution).
- In property searching one can combine multiple properties and even a molecular formula in one search. Refine after the fact with a drawn structure to further hone in on interesting molecules.
- SciFinder-n require a new license agreement and access will be more open than ever. The license includes access for Information professionals. Also, SciFinder-n allows for self-registration for users within an organization via <a href="https://sso.cas.org/registration/#/home">https://sso.cas.org/registration/#/home</a>
- Finally, I would like to mention the combination of topic search with structure search
  that enable users to search very broadly on very generic structures with very generic
  topics (that might combine into quite few answers). This ability has always been a highly
  wanted function by users and now it is here. It works because SF-n has virtually no
  search limits.