



# COLLECTIVE INTELLIGENCE

for creating new medicines

The European Lead Factory unites **bright ideas, talent, and experience.**

The aim is to seed new drug discovery programmes by **connecting** high-quality compounds to innovative drug targets.

Take **your chance** to benefit from the European Lead Factory!



**European  
Lead Factory**

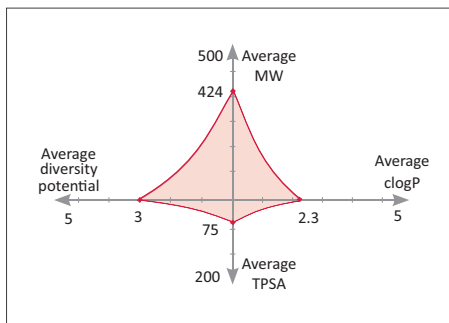
# OUR EXPERTISE YOUR CREATIVITY

The ESCulab Compound Collection (ECC) forms the core of the European Lead Factory. 350,000 compounds come from the proprietary collections of the eight pharma partners of the European Lead Factory and up to 200,000 from the European Lead Factory's own synthetic chemistry programme, the Public Compound Collection (PCC).

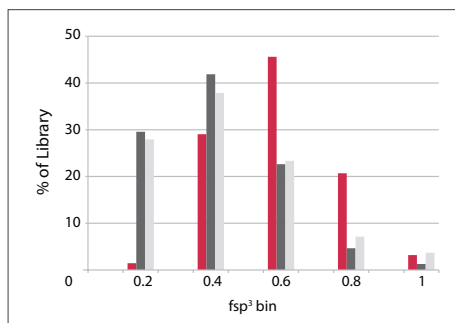
## More information about the Public Compound Collection and the partners that helped create it can be found via:

[www.europeanleadfactory.eu/pcc](http://www.europeanleadfactory.eu/pcc).

This is a unique set of tractable compounds that is not commercially available. The compounds are based on scaffolds characterized by a globular shape, distinct substitution patterns and many points of diversification. They are designed to provide versatile starting points and ample opportunities for further chemical exploration and growth during the hit-to-lead phase.



Properties of the PCC compounds. Average diversity potential is defined as the average number of diversification points.



Compounds with a high fraction of  $sp^3$  hybridized carbons ( $fsp^3$ ) are considerably more common in the PCC library (red) than in the compared compound sets (MLSMR library, dark grey and ChEMBL, light grey).

**NIS HALLAND** PhD - Senior Research Scientist, Sanofi



"The strict selection criteria and filtering process for the library proposals proved to be very successful for shaping compounds with desired properties. The most remarkable thing is that the majority of synthesized scaffolds have a high fraction of saturated carbons, which are normally very scarce in compound sets. I believe they add a significant value to any screening collection."

**JEREMY R. EVERETT** - *Expert Opin Drug Discov.* 2015,10(9):937-44

"A key advantage of the EU Lead Factory is the quality of the screening library, derived as it is from pharmaceutical compound files and with new compounds synthesized to exacting criteria."

# OUR RESOURCES YOUR RESULTS

Any European researcher from academia or a small and medium-sized enterprise can access the ESCulab Compound Collection for screening through the European Screening Centre. The European Lead Factory can help you find quality hit compounds for your innovative drug target or phenotype using your screening assay.

The submission process is designed to select the most promising proposals, while maintaining confidentiality and secure intellectual property. If successful, you become an integral member of the highly specialised drug discovery team, enabled by access to cutting-edge facilities and with

all screening costs covered by IMI funding.

Only in the case your programme leads to a patent, licensing deal or clinical studies, some of these costs will be paid back to the European Lead Factory. Drug targets of all types and in all therapeutic areas are welcomed. The European Screening Centre supports nearly all HTS- and HCS-compatible assay techniques.

Once you have received your Qualified Hit List of up to 50 compounds, you have up to 3 years exclusivity access rights to give your drug discovery programme a flying start. How? There are many opportunities. You choose!

**YOUR IDEA** is submitted online and should briefly describe the target and its value for drug discovery, the mode of action of future hits, the primary assay and the suggested screening cascade.

## ASSAY DEVELOPMENT & HTS CAMPAIGN

The assay is transferred to the European Screening Centre and miniaturised. Then the ultra-HTS campaign can begin.

## HIT SELECTION

Orthogonal and deselection assays are used to confirm engagement with your target and exclude false positives.

## RESYNTHESIS

Resynthesis of a selection of promising compounds to support hit confirmation

## QUALIFIED HIT LIST

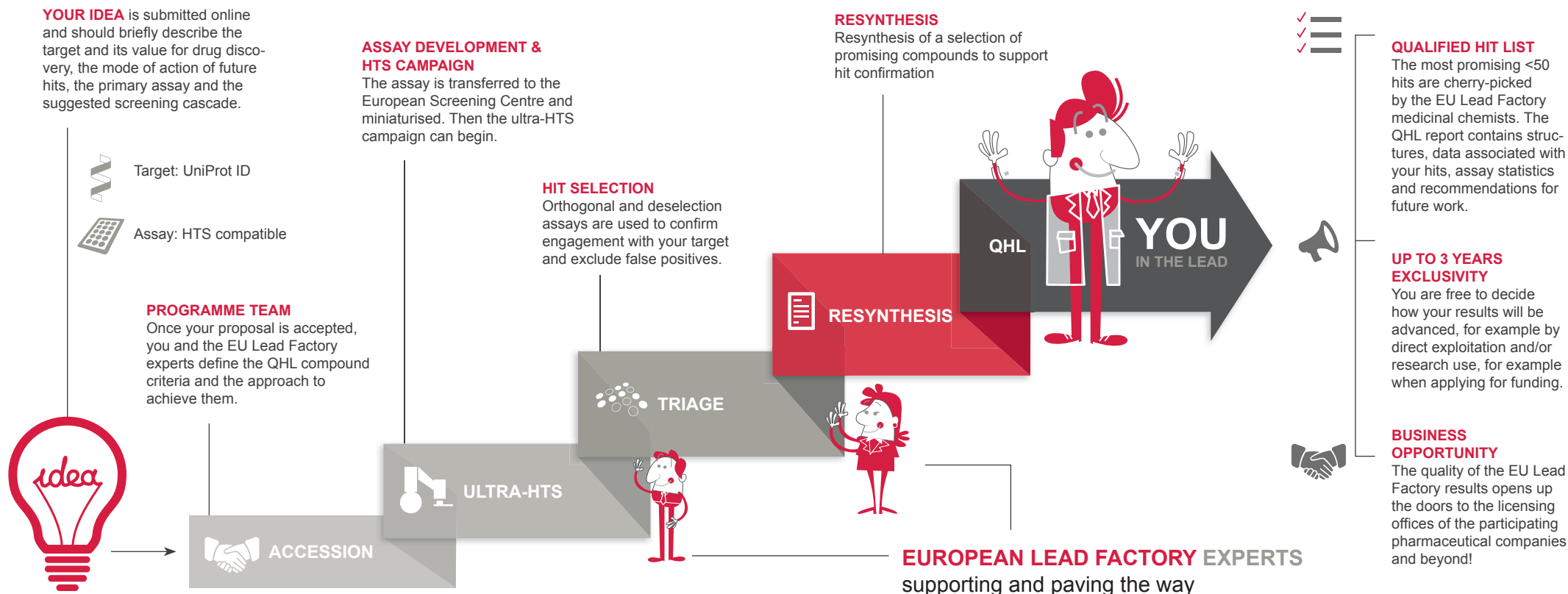
The most promising <50 hits are cherry-picked by the EU Lead Factory. The QHL report contains structures, data associated with your hits, assay statistics and recommendations for future work.

## UP TO 3 YEARS EXCLUSIVITY

You are free to decide how your results will be advanced, for example by direct exploitation and/or research use, for example when applying for funding.

## BUSINESS OPPORTUNITY

The quality of the EU Lead Factory results opens up the doors to the licensing offices of the participating pharmaceutical companies and beyond!



**CHRIS SCHOFIELD**, PhD - Head of Organic Chemistry, University of Oxford

"The outcomes exceeded our expectations."

"From the proposal submission process to help with developing the screening assay, validating the results, and chemical synthesis work, we were extremely impressed both with the technical competence and commitment of the EU Lead Factory teams."



**HUIB OVAA**, PhD - Professor of Chemical biology of post-translational protein modification, Leiden University Medical Center.

"Access to the European Lead Factory has fast-forwarded our drug discovery programme in the field of oncology by several years."

# HELPING **YOU** to create new medicines

The European Lead Factory is a collaborative public-private partnership aiming to deliver innovative drug discovery starting points. Hosting the ESCulab Compound Collection and the European Screening Centre, the European Lead Factory gives free access to up to 550,000 novel chemical compounds and a unique industry-standard HTS platform.

**Take your chance and benefit from the European Lead Factory!**

- **YOUR INNOVATIVE DRUG TARGET OR PHENOTYPE** for HTS / HCS screening
- **YOUR CREATIVE IDEAS** for better medicines

**Anybody, any screening programme**

The European Lead Factory is open to screening programmes related to all human disease areas and all types of defined molecular targets. Any researcher from any European academic institute or small and medium-sized enterprise can apply for screening of their potential drug target.

**CONTACT US NOW:**

[info@europeanleadfactory.eu](mailto:info@europeanleadfactory.eu)

## WHAT'S IN IT FOR YOU?

- Industry-standard HTS against the unique up-to 550,000 compound collection **FOR FREE**
- Access rights and up to 3 years exclusivity to exploit screening results
- Knowledge exchange and business opportunities

# A PUBLIC-PRIVATE PARTNERSHIP FOR DRUG DISCOVERY

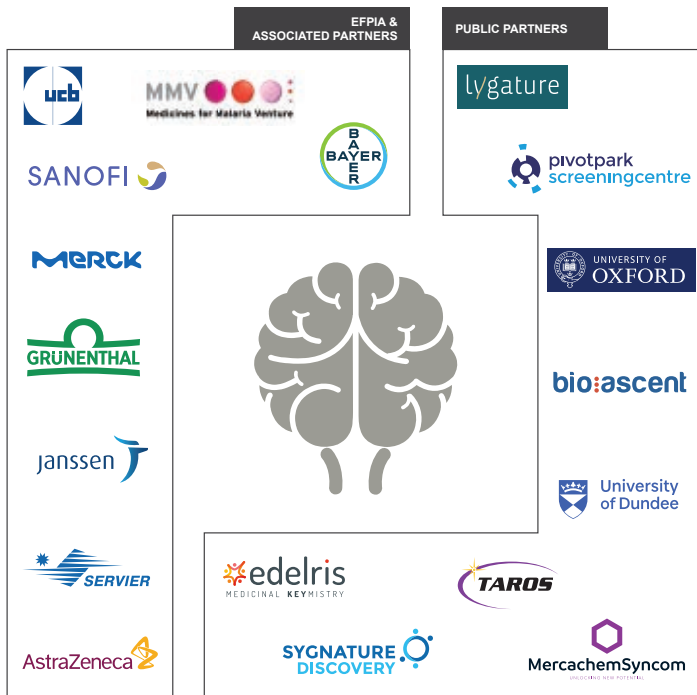
The European Lead Factory combines **innovation** of Academia, **agility** of SMEs, **experience** of Pharma and is **funded** by the Innovative Medicines Initiative (IMI).

The European Lead Factory is based on a partnership of 20 international partners and 14 former partners throughout Europe and welcomes the opportunity to collaborate with you to advance drug discovery even further. Within the project, crowdsourcing provides a constant flow

of innovation and new opportunities for collaborations between academic groups, or small and medium-sized enterprises (SMEs) and large pharma members on both scientific and commercial grounds.

## Contact details

[www.europeanleadfactory.eu](http://www.europeanleadfactory.eu) | [info@europeanleadfactory.eu](mailto:info@europeanleadfactory.eu)



## Disclaimer:

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