

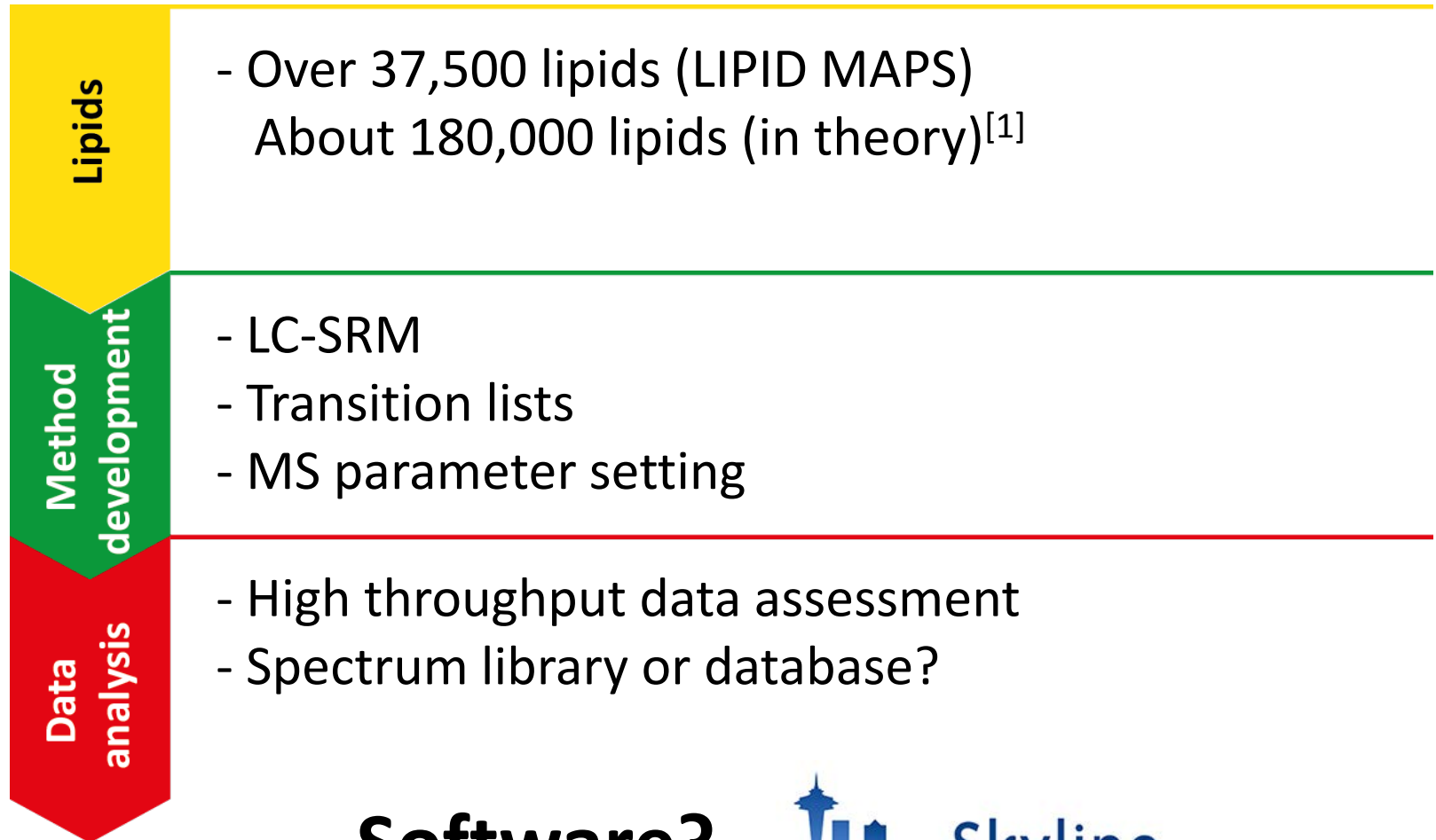
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# ADAPTATION OF SKYLINE FOR TARGETED LIPIDOMICS

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Bing Peng  
05.06.2016

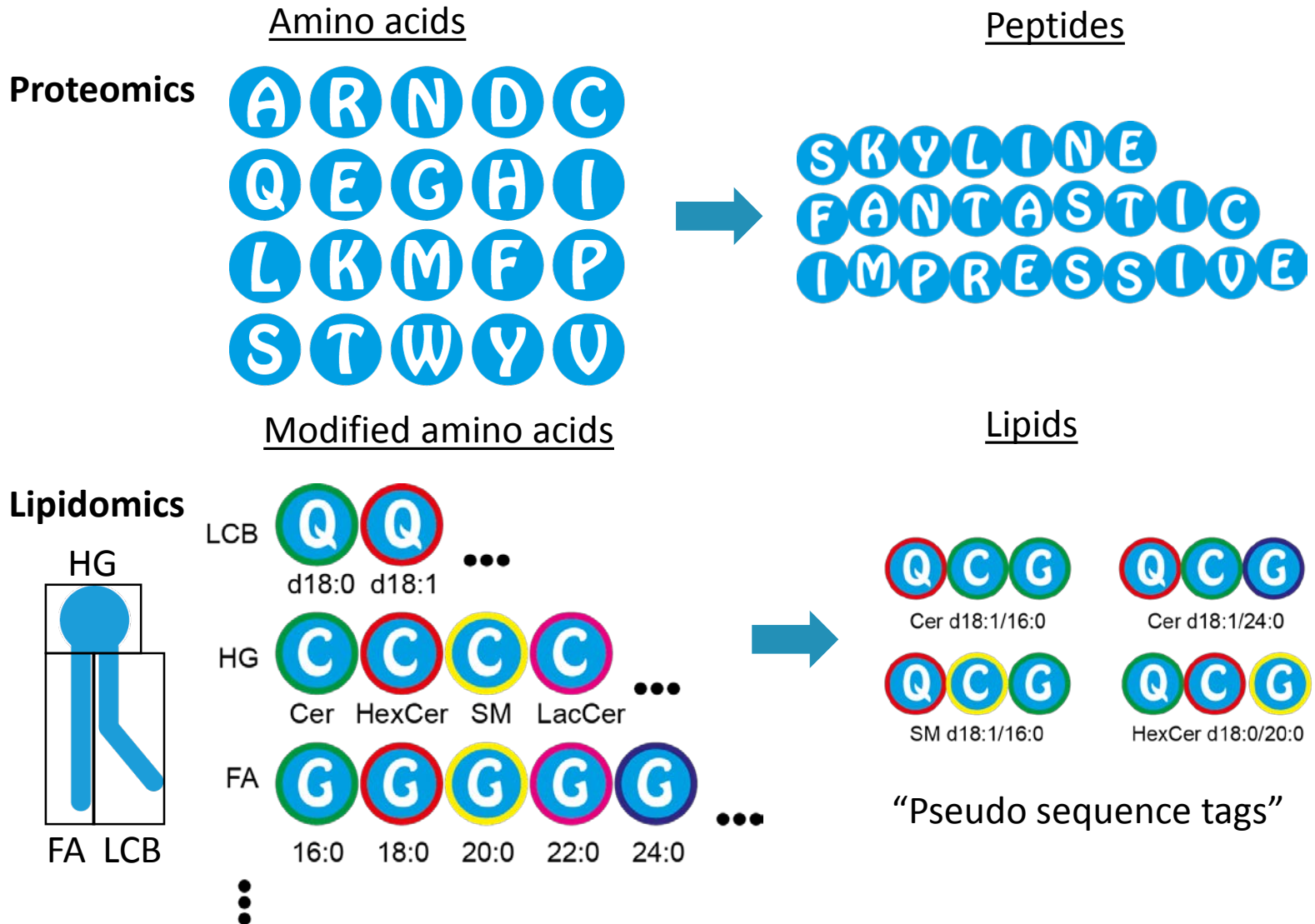
# TARGETED LIPIDOMICS



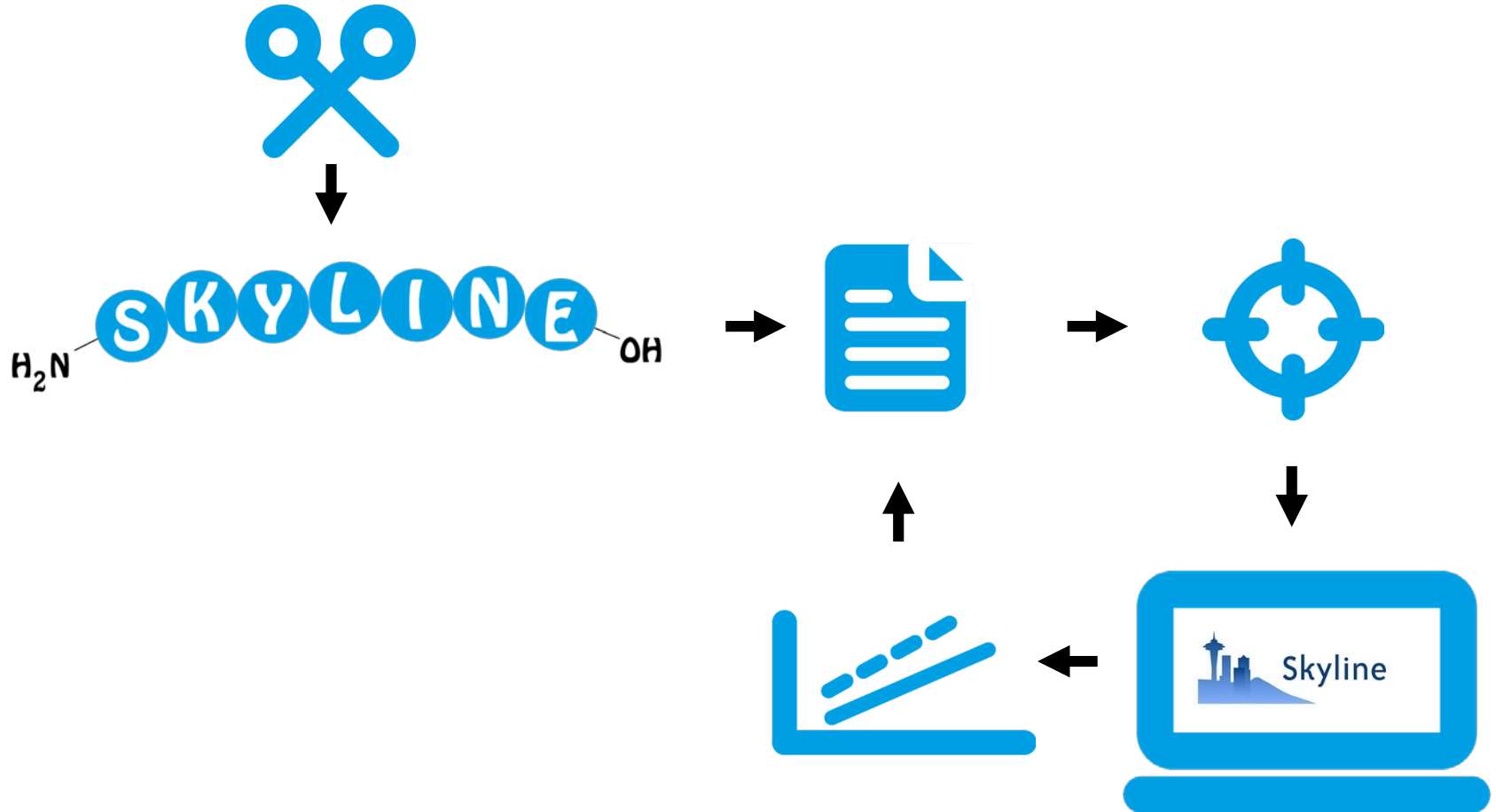
**Software?**



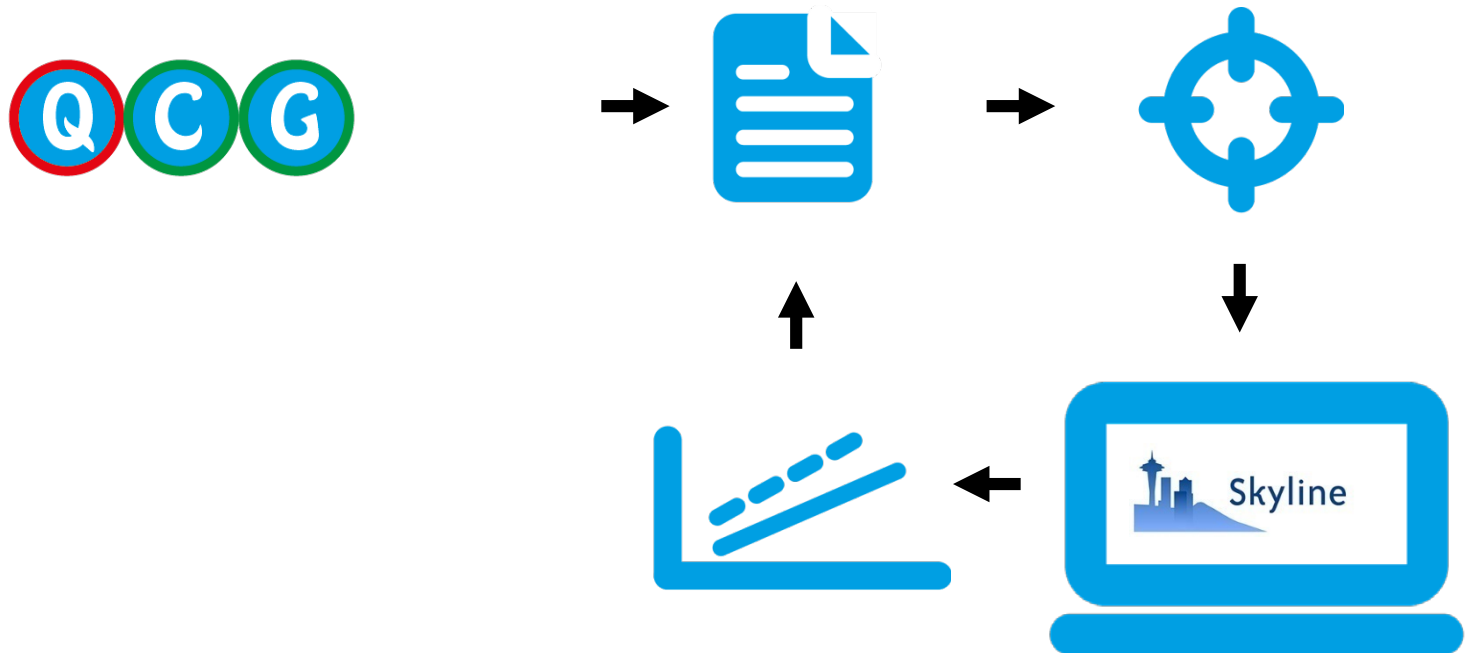
# INTRODUCTION



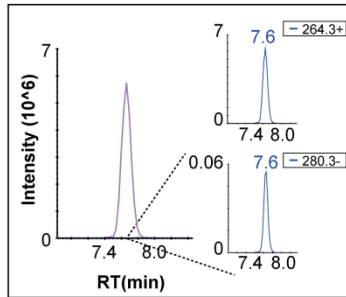
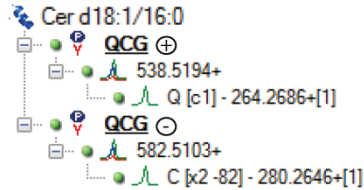
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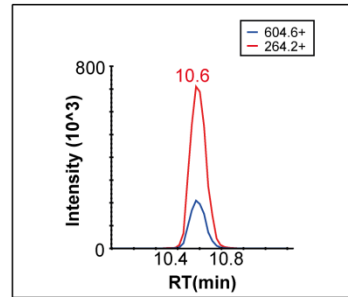
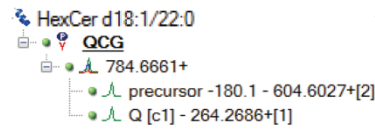
# WORKFLOW



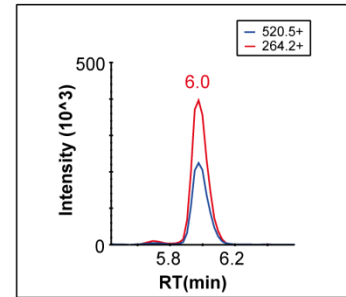
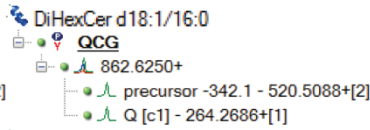
### A Cer d18:1/16:0



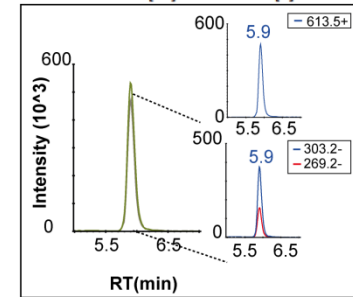
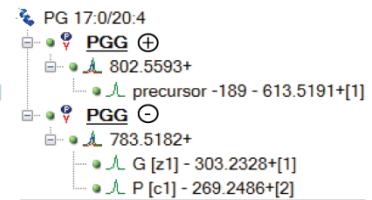
### B HexCer d18:1/22:0



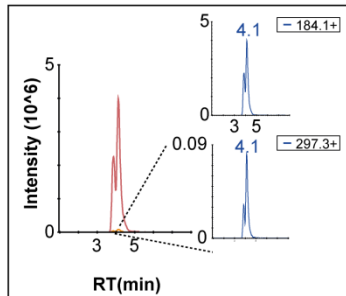
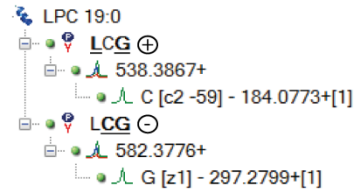
### C DiHexCer d18:1/16:0



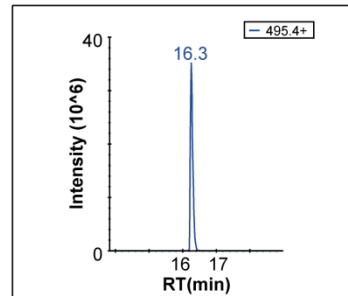
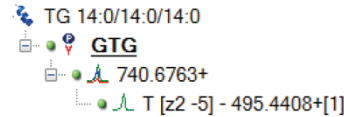
### D PG 17:0/20:4



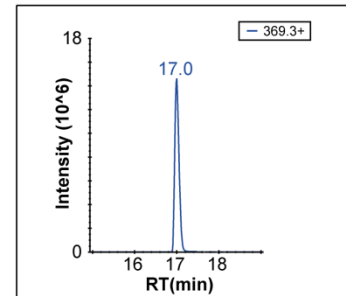
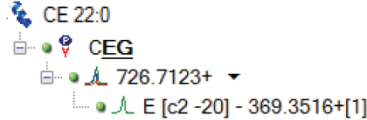
### E LPC 19:0



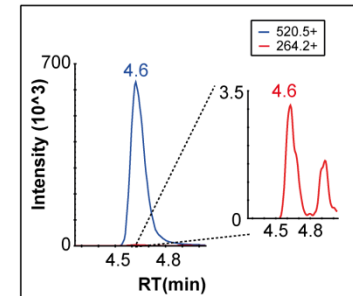
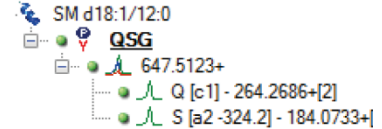
### F TG 14:0/14:0/14:0



### G CE 22:0

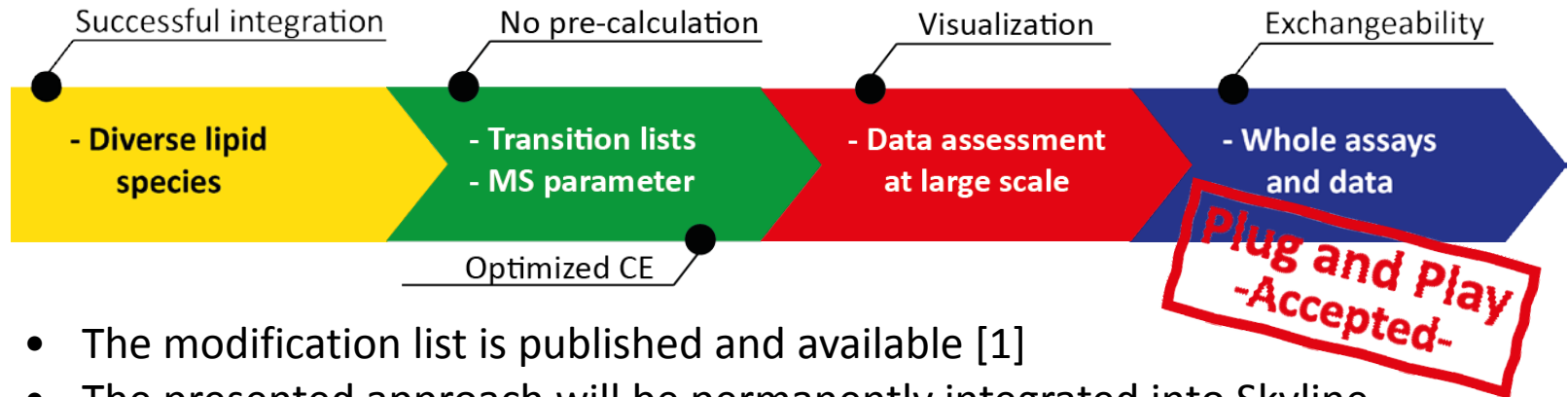


### H SM d18:1/12:0



# SUMMARY AND OUTLOOK

- Skyline offers an **all-in-one** solution for targeted lipidomics



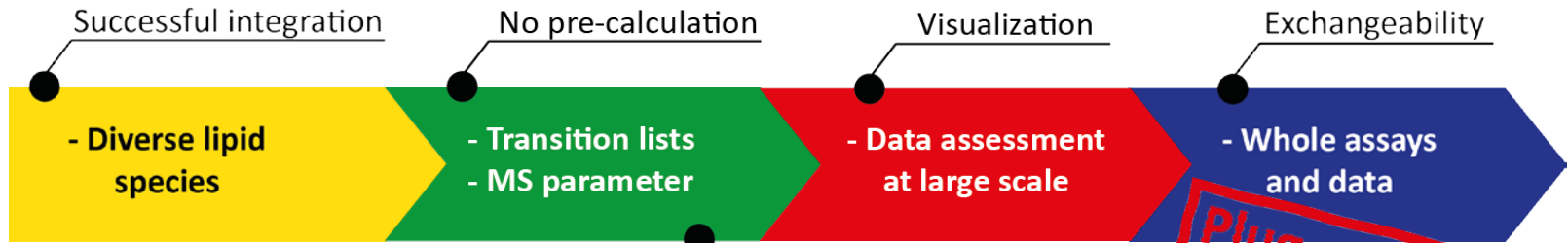
- The modification list is published and available [1]
- The presented approach will be permanently integrated into Skyline
- Is a base for a vendor independent exchange platform

## LipidCreator

Expected release: end of 2016

# SUMMARY AND OUTLOOK

- Skyline offers an **all-in-one** solution for targeted lipidomics



Cardiolipins    Glycerolipids    Phospholipids    Sphingolipids

Plug and Play

Fatty Acid 1: 12-24      Double bond: 0-6

Fatty Acid 2: 12-24      Double bond: 0-6

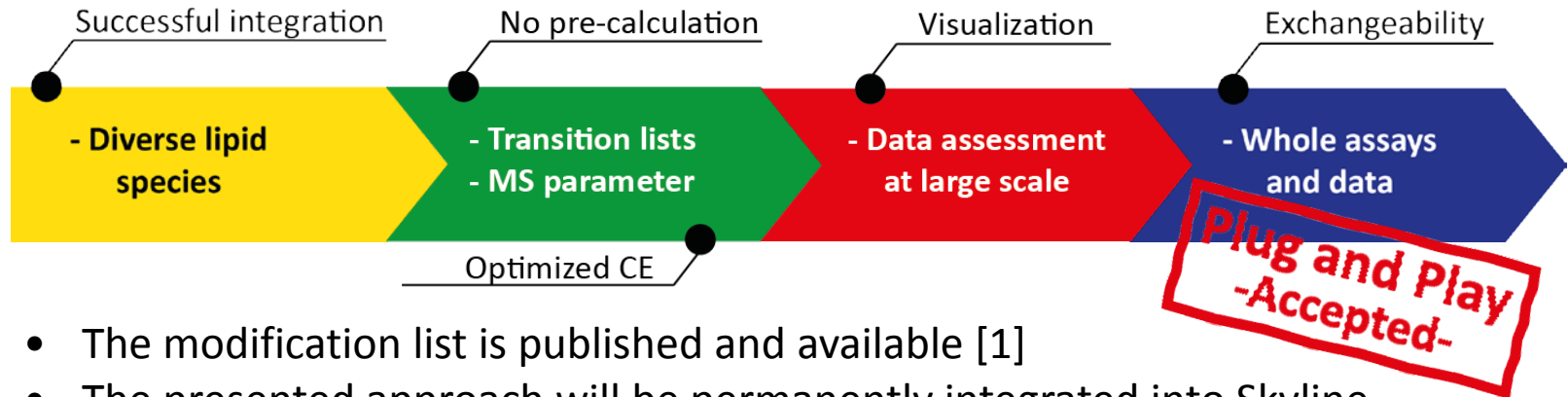
Fatty Acid 3: 12-24      Double bond: 0-6

Fatty Acid 4: 12-24      Double bond: 0-6



# SUMMARY AND OUTLOOK

- Skyline offers an **all-in-one** solution for targeted lipidomics



- The modification list is published and available [1]
- The presented approach will be permanently integrated into Skyline
- Is a base for a vendor independent exchange platform

## LipidCreator



Expected release: end of 2016



A spectral library build engine



A knowledgebase for sharing experiments and validated assays

- 
- 
- Dr. Robert Ahrends
  - **Lipidomics** group

- Prof. Dr. Albert Sickmann
- **Protein Dynamics** group

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# THANK YOU

Bing Peng



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