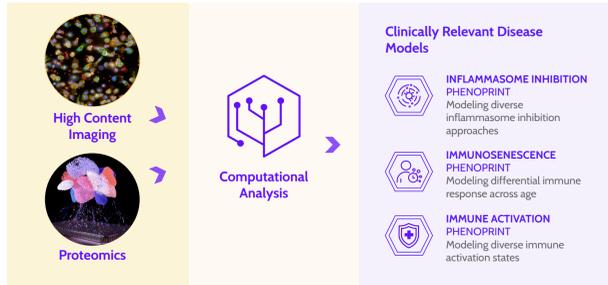


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## Introduction

Spring models complex disease phenotypes to discover novel therapies

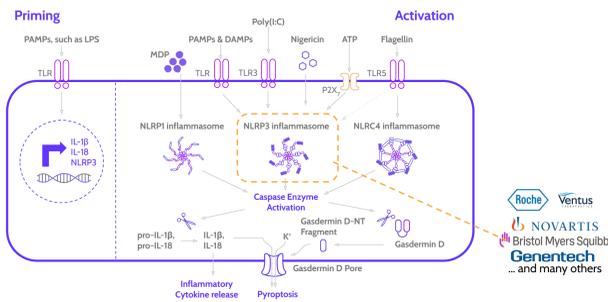


Spring's technology simultaneously measures many critical cell behaviors relevant to inflammasome biology

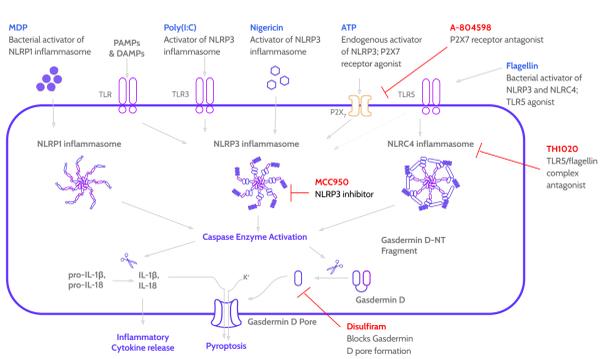


## Rationale

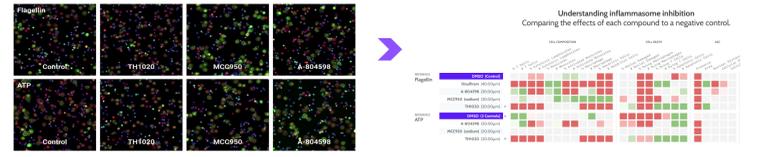
Industry has invested heavily in inflammasome biology with a limiting focus on NLRP3



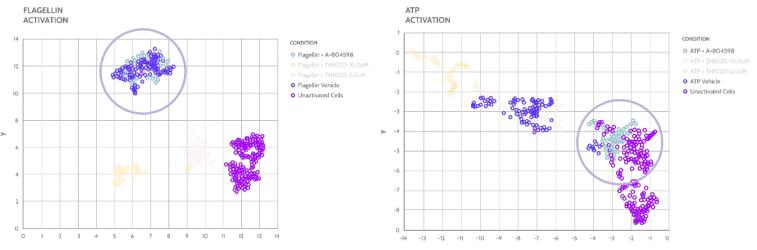
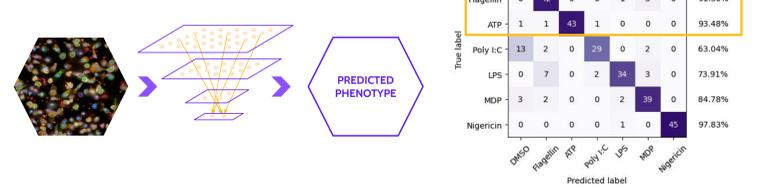
Our goal: To identify multiple novel inflammasome inhibitors from a single screen using tools that can resolve the complexities of inflammasome biology



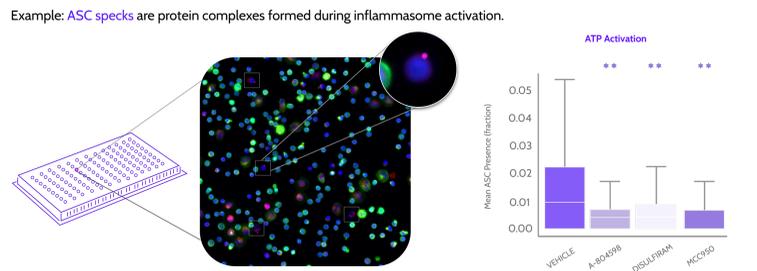
## Images and proteomics of pbmcs exposed to inflammasome control activators/inhibitors



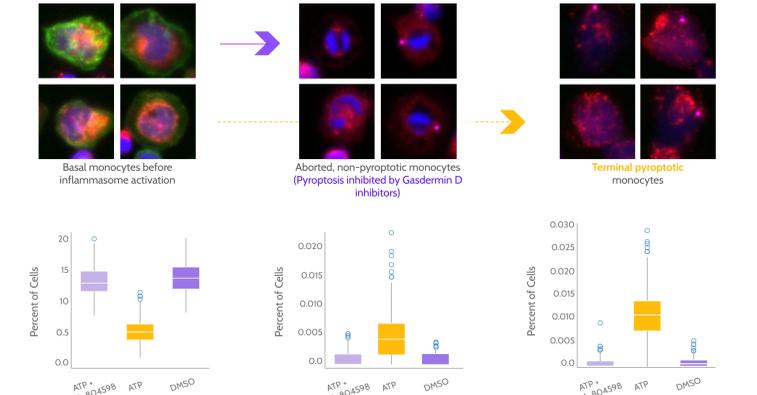
## Spring's deep learning classifiers show high accuracy for classifying different activation pathways



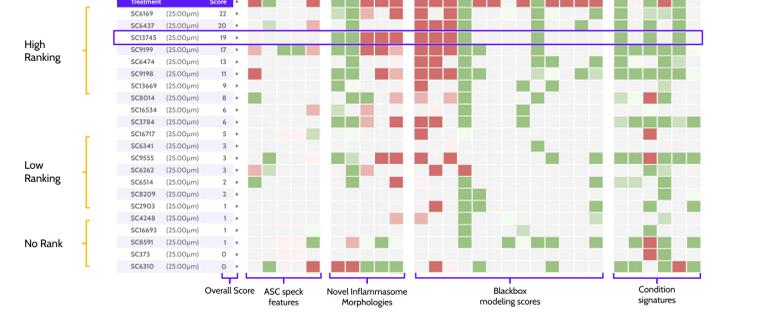
## Spring's automated imaging platform quantifies known single-cell phenotypes of inflammasome at scale



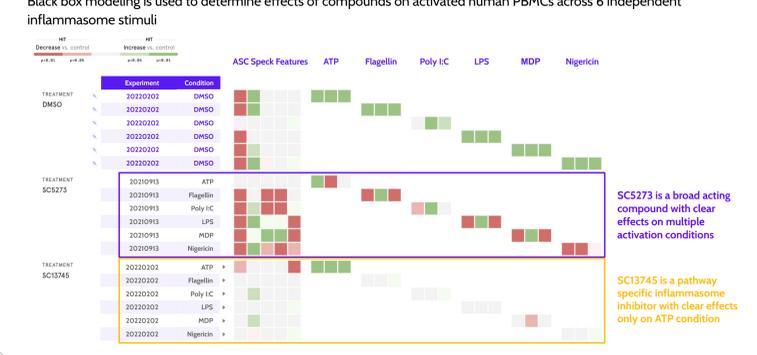
## Spring's platform also discovers novel single-cell phenotypes of inflammasome activation and inhibition



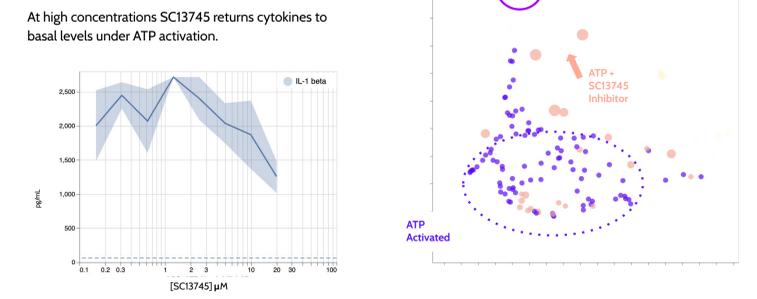
## MegaMap allows us to score and identify compounds using any combination of our data from our targeted and unbiased approaches



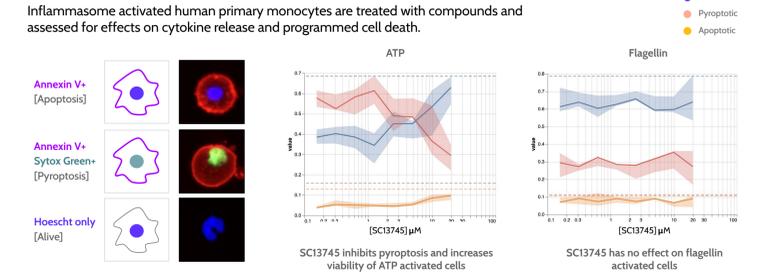
## Multi-activator validation assay gives us the power to resolve broad acting inhibitors from pathway specific inhibitors



## SC13745 dose-dependently shifts cytokine profile and IL1β towards basal conditions

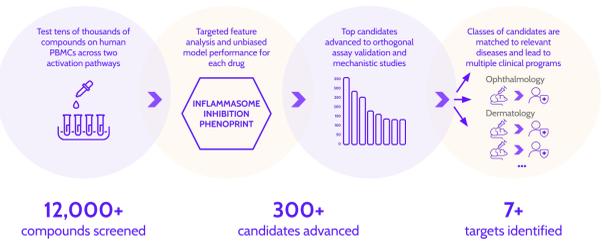


## Death classification assay automates simultaneous viability and types of cell death in primary human monocytes



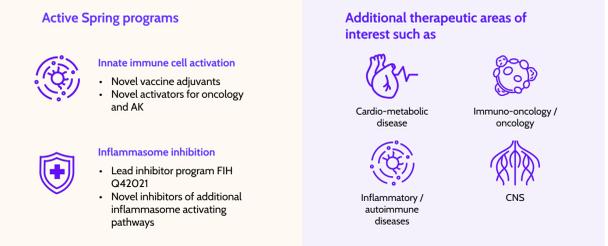
## Conclusions

Using this platform, Spring has identified 7+ targets that can be advanced in clinical programs whose pathologies are most relevant to the targets and their mechanisms of action



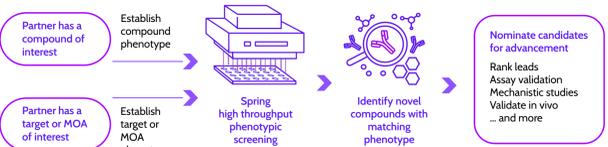
## Future Directions

Spring is interested in establishing R&D partnerships across multiple therapeutic areas



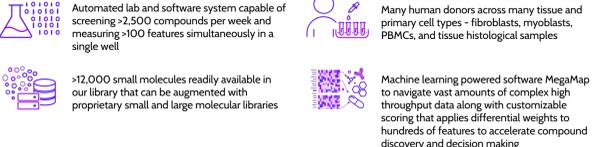
## Work With Us!

Spring models complex disease phenotypes to help partners identify novel candidates



## Partner with Spring

Spring's technology is being used in many different therapeutic areas (including immunology and dermatology) with a range of partners, and we're open to more. We're excited to discuss both strategic collaborations and software licensing with biotech companies, pharma companies, academic groups and other research organizations looking for novel biological insights or tools to accelerate discovery and development.



## Acknowledgements

Cytokine data provided by Nomic Bio

Disclosures: All authors were employees of Spring Discovery at the time this work was conducted.

Link to poster