



**Schrödinger**

# **Pioneering Computational Molecular Design**

July 2024



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This presentation contains certain "forward-looking statements" within the meaning of the U.S. Private Securities Litigation Reform Act of 1995 that involve substantial risks and uncertainties. All statements, other than statements of historical fact, made by Schrödinger, Inc. ("we," "us," "our," "Schrödinger," or the "Company") contained in this presentation, including, without limitation, statements regarding the potential advantages of our computational platform, our financial outlook for the fiscal year ending December 31, 2024 and third quarter ending September 30, 2024, our research and development efforts for our proprietary drug discovery programs and our platform, the initiation, timing, progress, and results of our proprietary drug discovery programs and the drug discovery programs of our collaborators, the clinical potential and favorable properties of our molecules, including SGR-1505, SGR-2921 and SGR-3515, and other compounds discovered with our platform, the timing of potential investigational new drug submissions as well as initiation of clinical trials for our proprietary drug discovery programs, the clinical potential and favorable properties of our collaborators' product candidates, our ability to realize milestones, royalties, and other payments from our collaborative and proprietary programs, including our ability to realize returns on any of our investments in the companies we collaborate with, our plans to discover and develop product candidates and to maximize their commercial potential by advancing such product candidates ourselves or in collaboration with others, our plans to leverage the synergies between our businesses, our initiative to expand our computational platform to predict toxicity associated with binding to off-targets, our expectations regarding our ability to fund our operating expenses and capital expenditure requirements with our existing cash, cash equivalents, and marketable securities, and our expectations related to the key drivers of our performance, are forward-looking statements. The words "aim," "anticipate," "believe," "contemplate," "continue," "could," "estimate," "expect," "goal," "intend," "may," "might," "plan," "potential," "predict," "project," "should," "target," "will," "would" or the negative of these words or other similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

These forward-looking statements reflect our current views about our plans, intentions, expectations, strategies and prospects, which are based on the information currently available to us and on assumptions we have made. Actual results may differ materially from those described in the forward-looking statements and are subject to a variety of assumptions, uncertainties, risks and important factors that are beyond our control, including the demand for our software solutions, the reliance upon our third-party drug discovery collaborators, the uncertainties inherent in drug development and commercialization, such as the conduct of research activities and the timing of and our ability to initiate and complete preclinical studies and clinical trials, uncertainties associated with the regulatory review of clinical trials and applications for marketing approvals, factors adversely affecting the life sciences industry, and other risks detailed under the caption "Risk Factors" and elsewhere in our Securities and Exchange Commission ("SEC") filings and reports, including our Quarterly Report on Form 10-Q for the quarter ended June 30, 2024, filed with the SEC on July 31, 2024, as well as future filings and reports by us. Any forward-looking statements contained in this presentation speak only as of the date hereof. Except as required by law, we undertake no duty or obligation to update any forward-looking statements contained in this presentation as a result of new information, future events, changes in expectations or otherwise.

This presentation includes statistical and other industry and market data that we obtained from industry publications and research, surveys, and studies conducted by third parties as well as our own estimates of potential market opportunities. All of the market data used in this presentation involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such data. We have not independently verified such third-party data, and we undertake no obligation to update such data after the date of this presentation.

# Recent Highlights

- Launched initiative to significantly expand application of computational tools for predictive toxicology – \$10M grant from Bill & Melinda Gates Foundation
- Initiated patient dosing in SGR-3515 Phase 1 study
- Received FDA Fast Track Designation for SGR-2921 in R/R AML\*
- Anticipated realization of \$48M from sale of equity in Morphic as result of planned acquisition by Lilly



# Pioneering Digital Chemistry



30+ years of innovation



Over 850 employees worldwide; >40% Ph.D.



>50% of employees dedicated to R&D



~1,785 customers, including top 20 biopharma<sup>1</sup>



Pipeline of 25+ collaborative and proprietary programs



# Our Target-to-Clinic Digital Chemistry Laboratory



## Target Validation

Protein structure determination

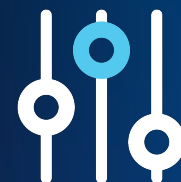
Druggability assessment



## Hit Identification

Large-scale virtual screening

Fragment screening



## Lead Optimization

Compound enumeration

*In silico* assays for:

- Potency
- Selectivity / Off-target toxicity
- Solubility
- Membrane permeability
- Brain exposure

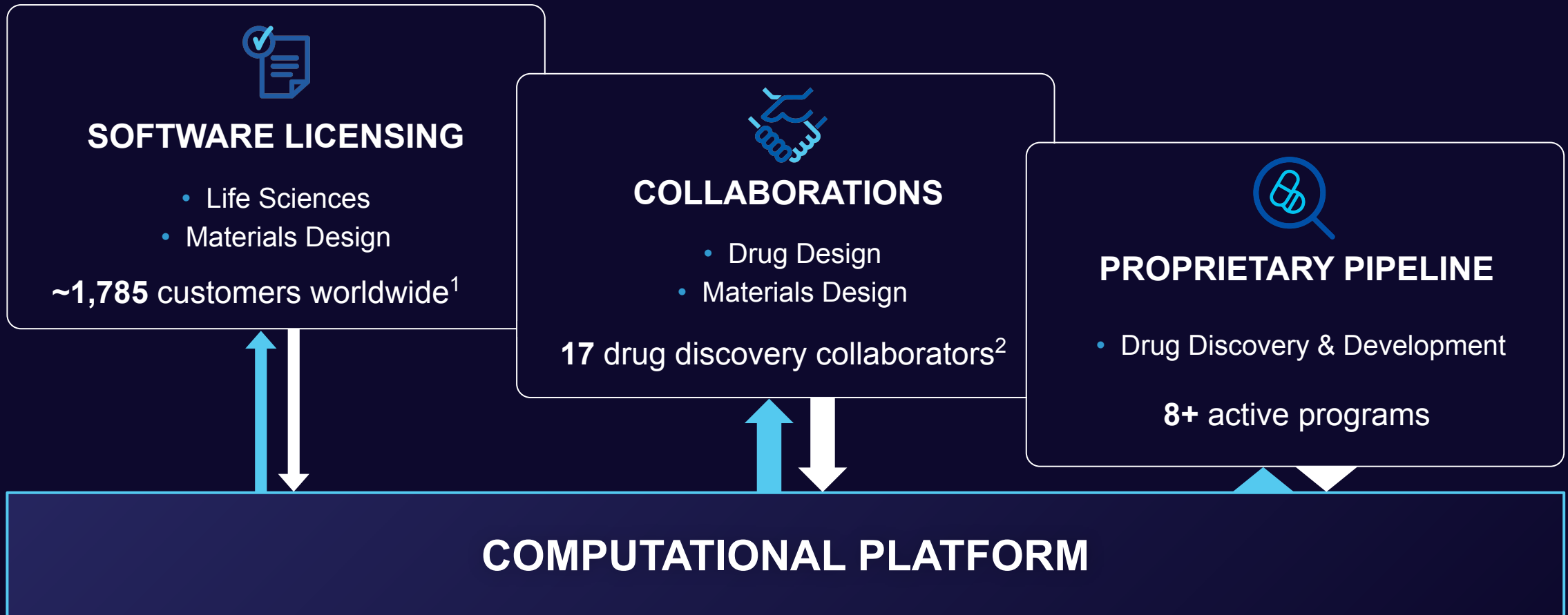


## Preclinical Development

Polymorph prediction

Drug formulation

# Multi-Pronged Business Enabled by Highly Differentiated Computational Platform











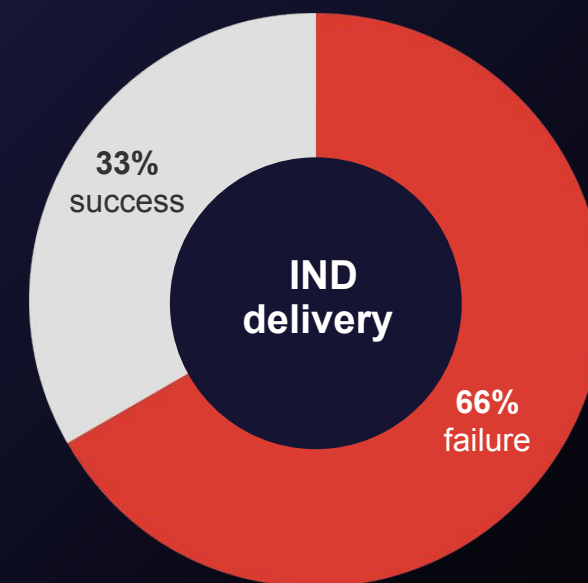
# Computational Platform

# Designing Drugs Is a Highly Challenging Multi-Parameter Optimization Problem

Need to identify a molecule that balances many anti-correlated properties:

						
Potency	✓	×	✓	×	✓	✓
Selectivity	×	✓	✓	✓	×	✓
Solubility	×	×	×	✓	✓	×
Bioavailability	×	×	×	×	×	×
Clearance / Half-life	×	×	×	×	×	×
Permeability	×	×	×	×	×	×
Drug-drug interactions	×	×	×	×	×	×
Synthesizability	×	×	×	×	×	×

...



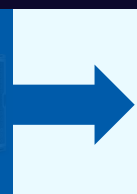


# Schrödinger's Vision for the Future of Drug Discovery

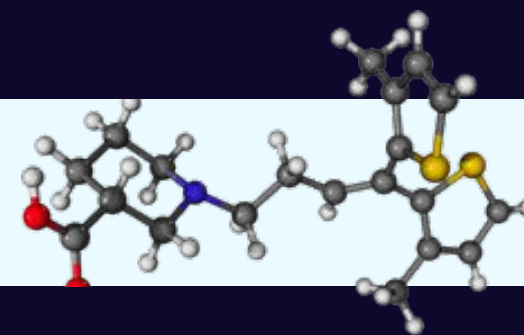
If all properties can be calculated with perfect accuracy, designing drugs would have a much **higher success rate**, be much **faster** and **cheaper**, and would produce much **higher-quality** molecules.



“**All**”  
synthesizable  
molecules  
( $\sim 10^{10} - 10^{80}$ )

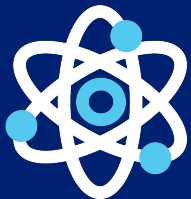


Select **THE** best molecule



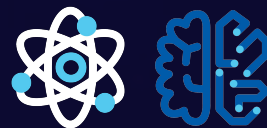
Potency	✓	Clearance / Half-life	✓
Selectivity	✓	Permeability	✓
Solubility	✓	Drug-Drug Interactions	✓
Bioavailability	✓	Synthesizability	✓

# Digital Chemistry Laboratory Leverages Physics + AI



## Physics-based Methods

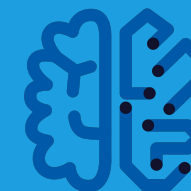
- ✓ No training set required
- ✓ Can extrapolate into novel chemical space
- ✓ Accurate
- ✗ Slow



## Physics + AI

### Training Set for AI/ML Generated Using Physics

- ✓ Fast
- ✓ Accurate
- ✓ Can handle very large datasets
- ✓ Can extrapolate into novel chemical space

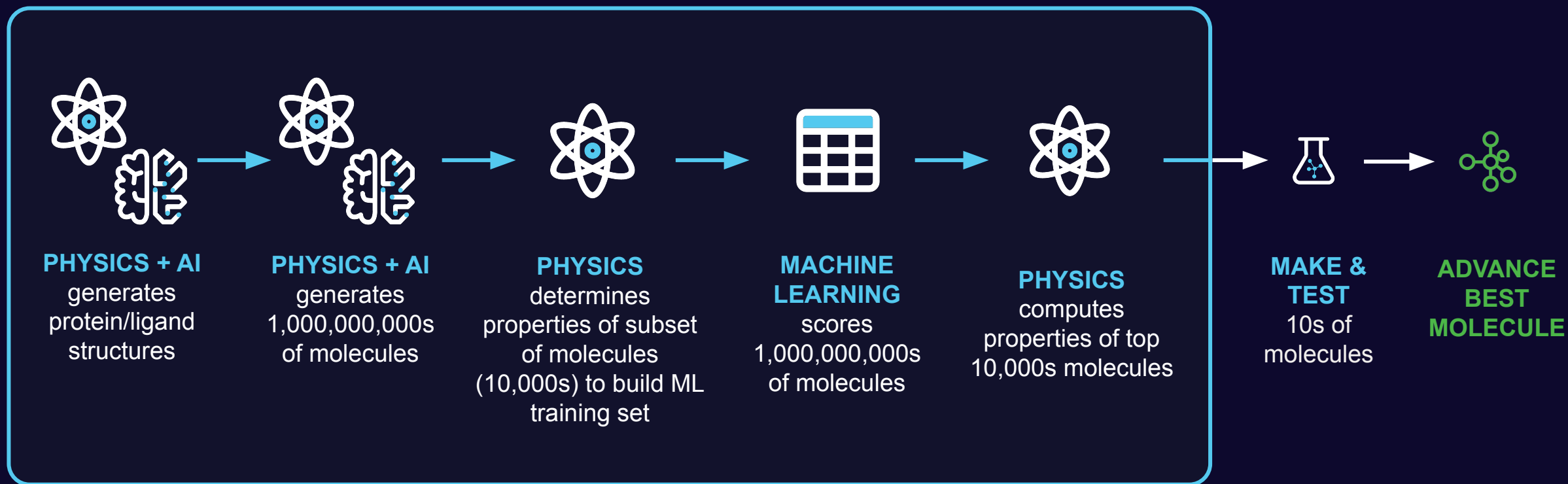


## Artificial Intelligence / Machine Learning







- ✓ Effective at interpolation
- ✓ Fast
- ✓ Can handle very large datasets
- ✗ Requires massive training sets



# Physics-Enabled AI/ML Platform



# Platform Validated by Advancing Collaboration Programs<sup>(1)(2)</sup>

Phase 1		Phase 2		Phase 3		FDA-Approved	
	Immuno-oncology		Metabolic Diseases <sup>3</sup>		Psoriasis <sup>3</sup>		TIBSOVO <sup>4</sup> IDHIFA <sup>4</sup>
	Obesity		Inflammatory Bowel Disease				
Undisclosed	Undisclosed						
Undisclosed	Undisclosed						

Additional programs in discovery and preclinical development with:



<sup>1</sup>Based on publicly available information or information disclosed to us.

<sup>2</sup>All of the programs being pursued under these collaborations are owned and controlled by each respective collaborator.

<sup>3</sup>Acquired from Nimbus.

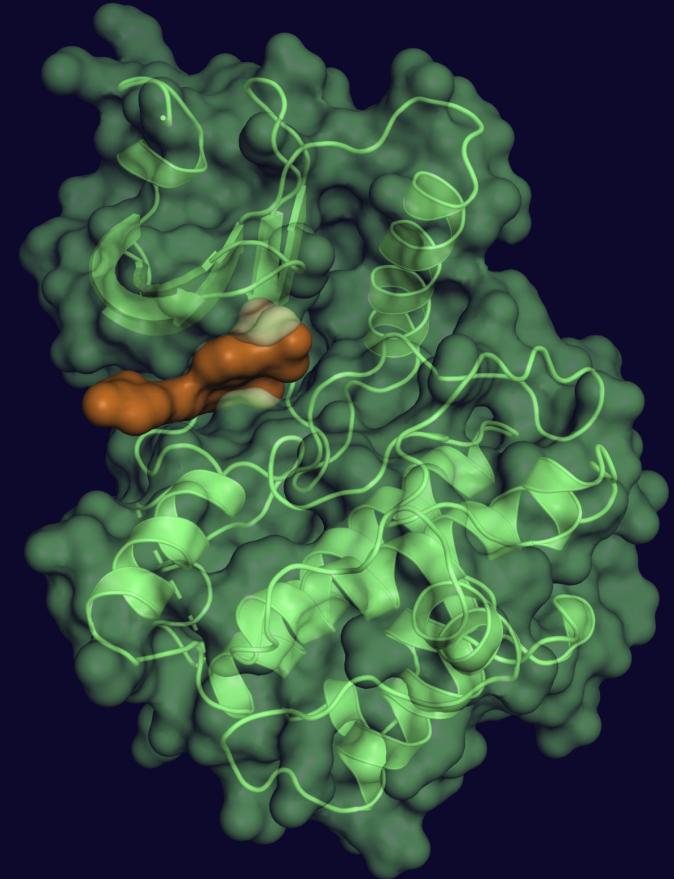
<sup>4</sup>Acquired by Servier.



# New Predictive Toxicology Initiative

# Off-Target Toxicity Is a Major Challenge in Drug Discovery

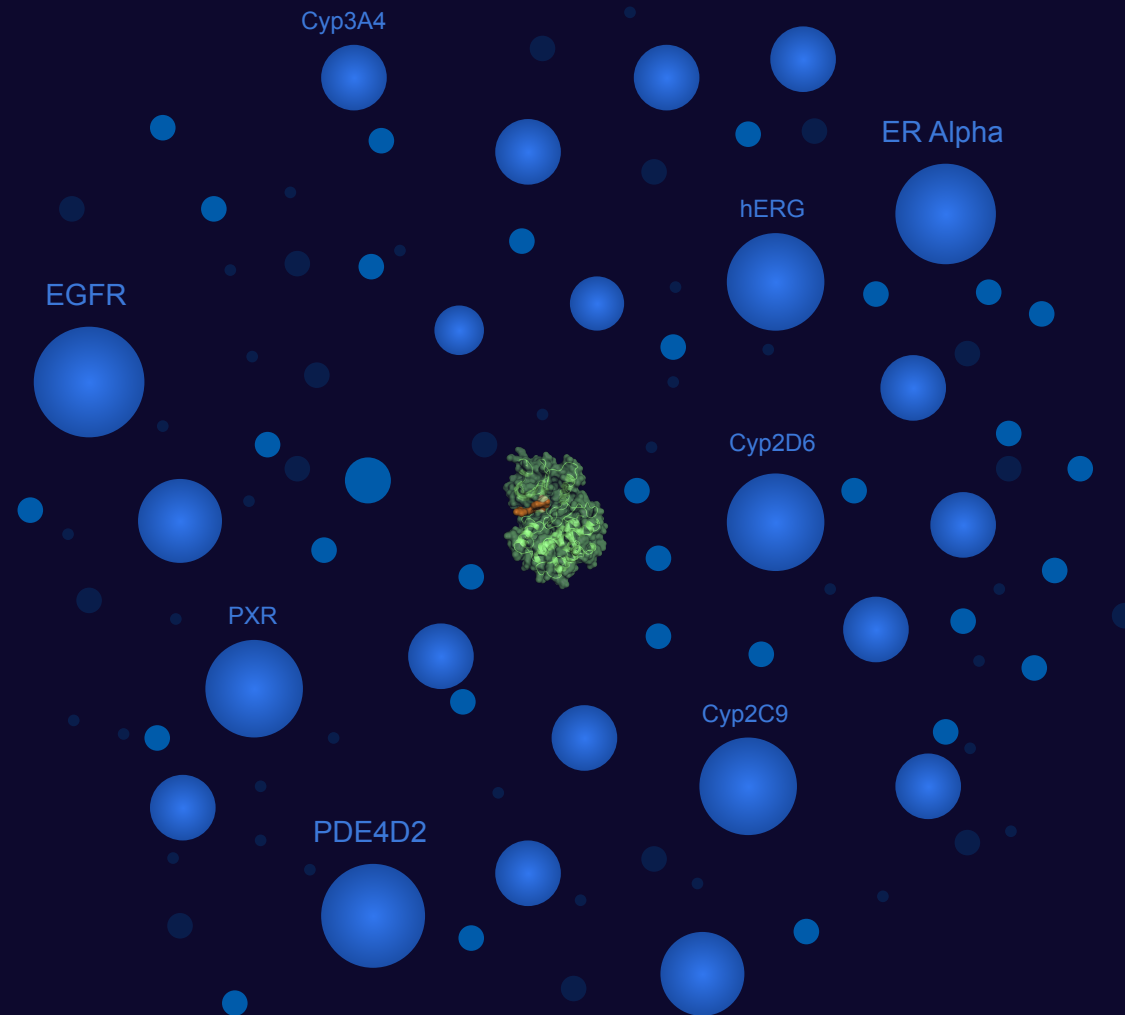
- Toxicity associated with binding to off-target proteins is a significant cause of development failures
- Current drug discovery is focused primarily on ligand binding to therapeutic target protein
- Experimental toxicity screening is slow, costly and usually assessed late in the discovery process





# Predicting Off-Target Toxicity Can Dramatically Improve Drug Discovery Productivity

- **Predictive Toxicology Initiative:** Determine structure of off-target proteins and build accurate structure-based models for ligand binding to off-targets
- A predictive, computational, approach offers multiple advantages:
  - Early de-risking
  - Faster ligand evaluation
  - Greater throughput
  - Lower cost
  - **Improved toxicity profile**



# Schrödinger's Predictive Toxicology Initiative

## Schrödinger

- Determines off-target protein structures
- Develops accurate predictive models
- Incorporates models into platform

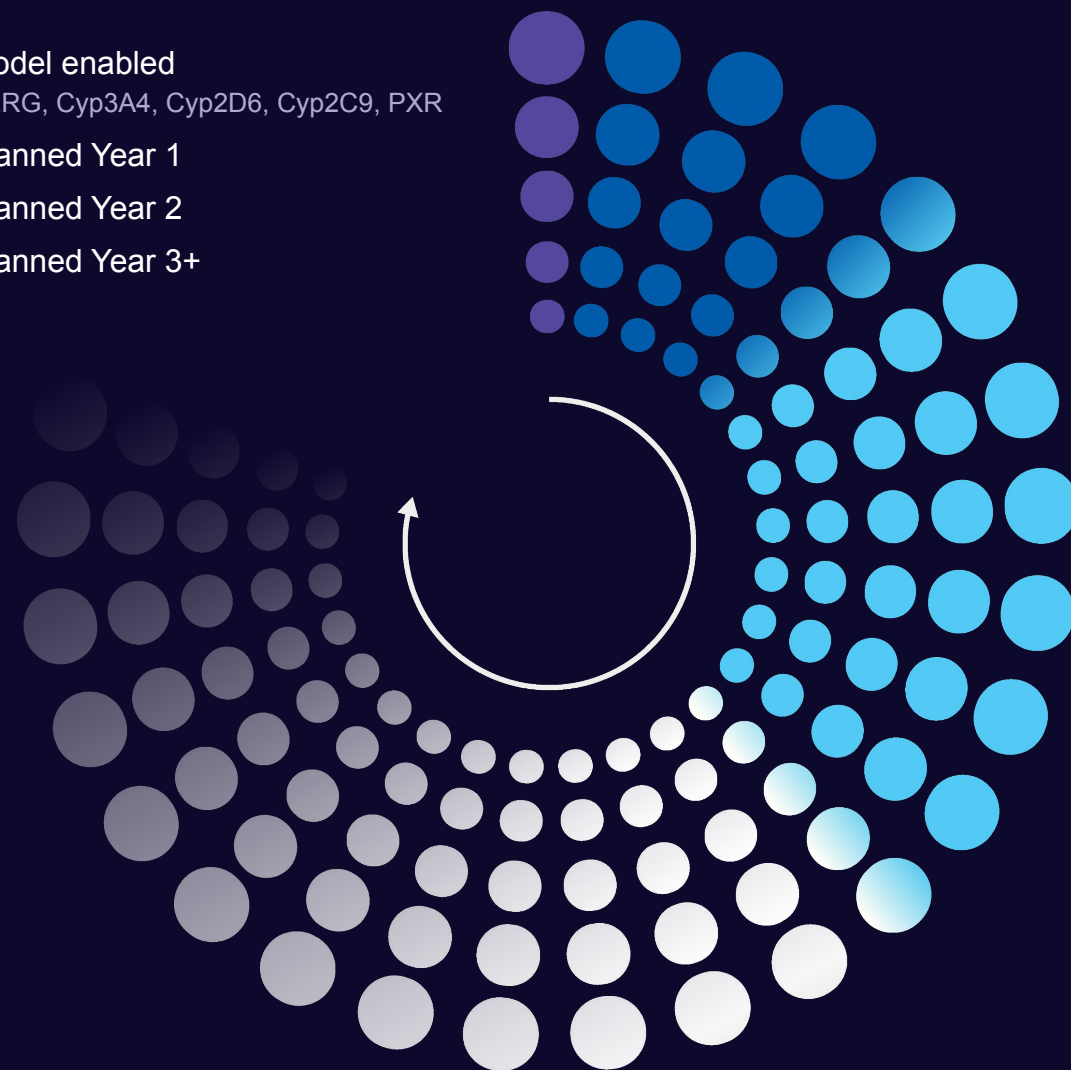
BILL & MELINDA  
GATES foundation

- Committed \$10M initial grant

 NVIDIA

- Provides enabling AI technologies

- Model enabled  
hERG, Cyp3A4, Cyp2D6, Cyp2C9, PXR
- Planned Year 1
- Planned Year 2
- Planned Year 3+



# Proprietary Pipeline



# Advancing Multiple Clinical and Preclinical Programs



\*Definitions: R/R: Relapse/refractory; AML: Acute myeloid leukemia; MDS: Myelodysplastic syndromes.

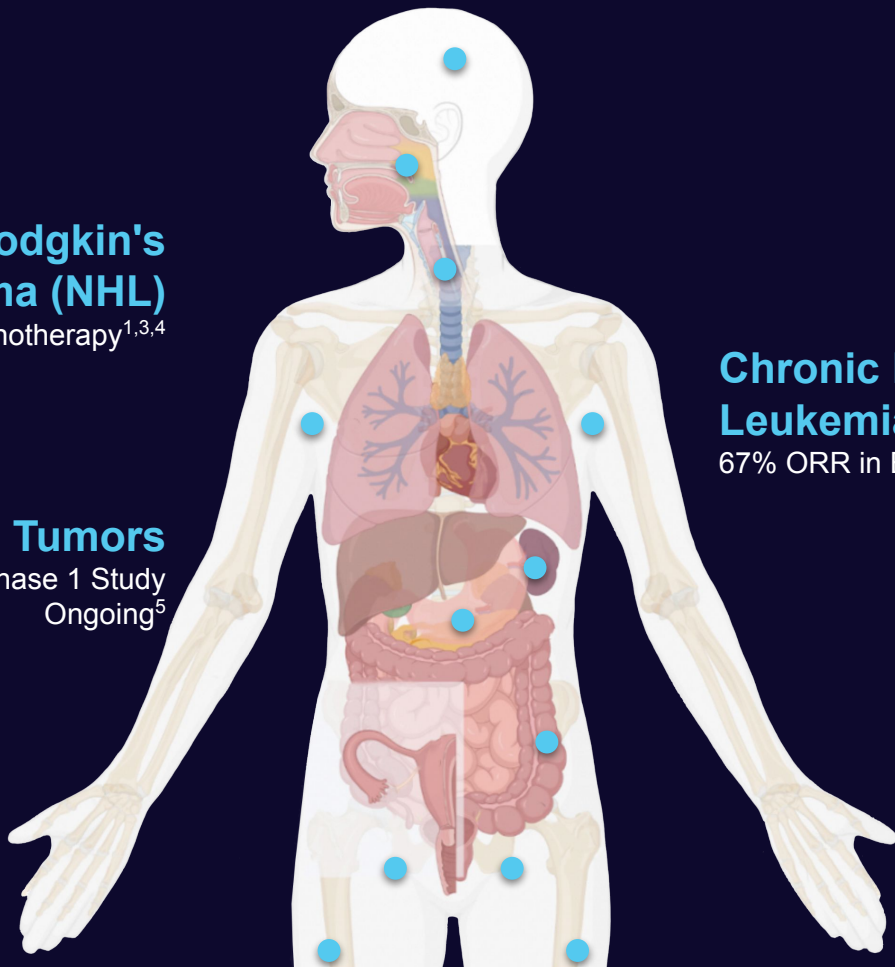
# MALT1 Protease Inhibition Clinically Validated in 3<sup>rd</sup> Party Study

## Non-Hodgkin's Lymphoma (NHL)

28% ORR\* monotherapy<sup>1,3,4</sup>

## Solid Tumors

Third Party Phase 1 Study Ongoing<sup>5</sup>



## Chronic Lymphocytic Leukemia (CLL/SLL)

67% ORR in BTK\* combination<sup>2</sup>

## Allosteric Inhibition of MALT1

- Clinically validated by 3<sup>rd</sup> party MALT1 inhibitor showed monotherapy and combination activity in human B-cell malignancies
- Opportunity for well-tolerated, potent, optimized inhibitors in NHL and CLL
- Potential in autoimmune disease

\*Definitions: ORR: overall response rate; BTK: Bruton tyrosine kinase.

<sup>1</sup>WO2022184716 Combination Therapy using MALT1 Inhibitor and BTK Inhibitor. <sup>2</sup>WO2022185097 Method of treating a condition using a therapeutically effective dose of the MALT1 inhibitor JNJ-67856633. <sup>3</sup>Kalac M. et. al, EHA Abstracts HemaSphere 7(S3):p e60782b9, August 2023. <sup>4</sup>Hertzberg et. al. *Hematological Oncol* June 2023. <sup>5</sup>Naing et al., *Ann Oncol* 2023, 34 (suppl\_2): S619-S650.

# SGR-1505 Status and Next Steps

## Phase 1 healthy subject study completed

- SGR-1505 was generally well tolerated with no dose-limiting toxicities and no serious adverse events
- Favorable PK and evidence of target engagement

## Phase 1 study in advanced R/R B-cell malignancies ongoing

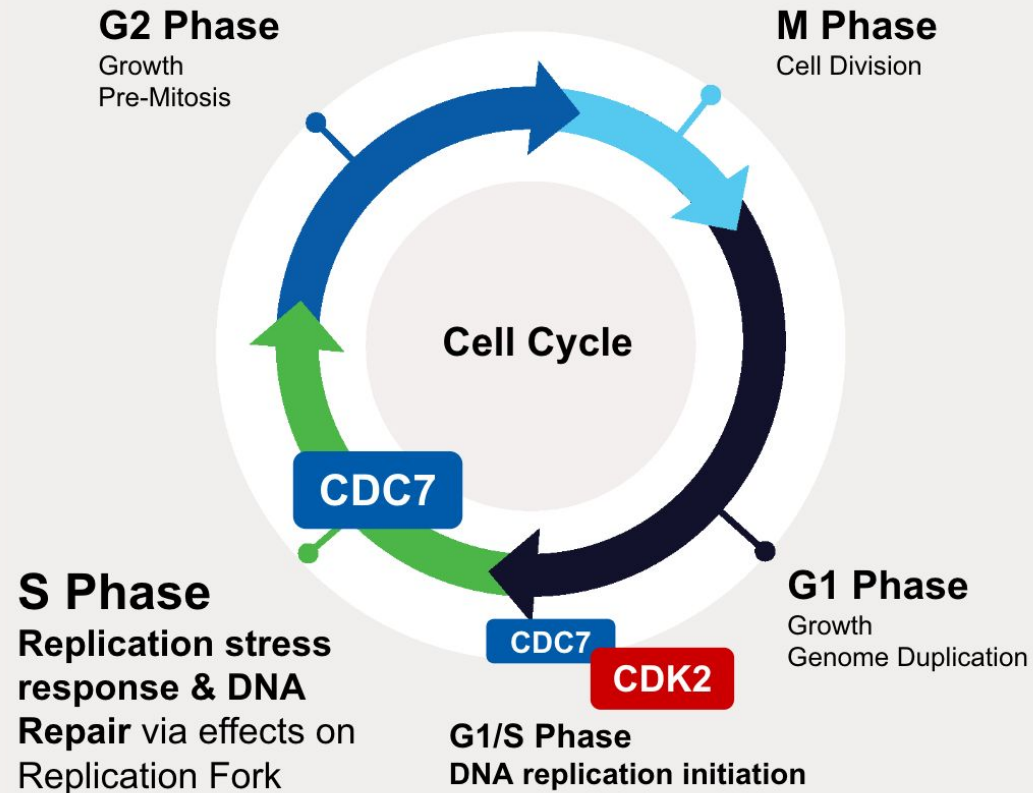
- Primary objectives: Evaluate safety, PK, PD, RP2D\*
- Secondary objective: Evaluate early signs of activity
- Initial clinical data presentation expected 1H 2025

## Future opportunities

- Combination opportunities with standard of care agents
- Orphan drug designation in mantle cell lymphoma
- Expansion opportunities in oncology and autoimmune disease



# CDC7 Is an S-phase Kinase That Regulates DNA Replication and the Replication Stress Response



## CDC7

- Maintains DNA replication fork progression, activates fork protection and restart mechanisms<sup>1,2</sup>
- Activates BRCA1-A and Cohesin complexes<sup>1</sup>
- Required for protection and restart of stalled replication forks<sup>1,3,4</sup>

# SGR-2921 Status and Next Steps

## Strong preclinical rationale

- High replication stress in AML
- Potent and selective CDC7 inhibition shows strong anti-proliferative activity in AML samples, including those resistant to standard-of-care therapies

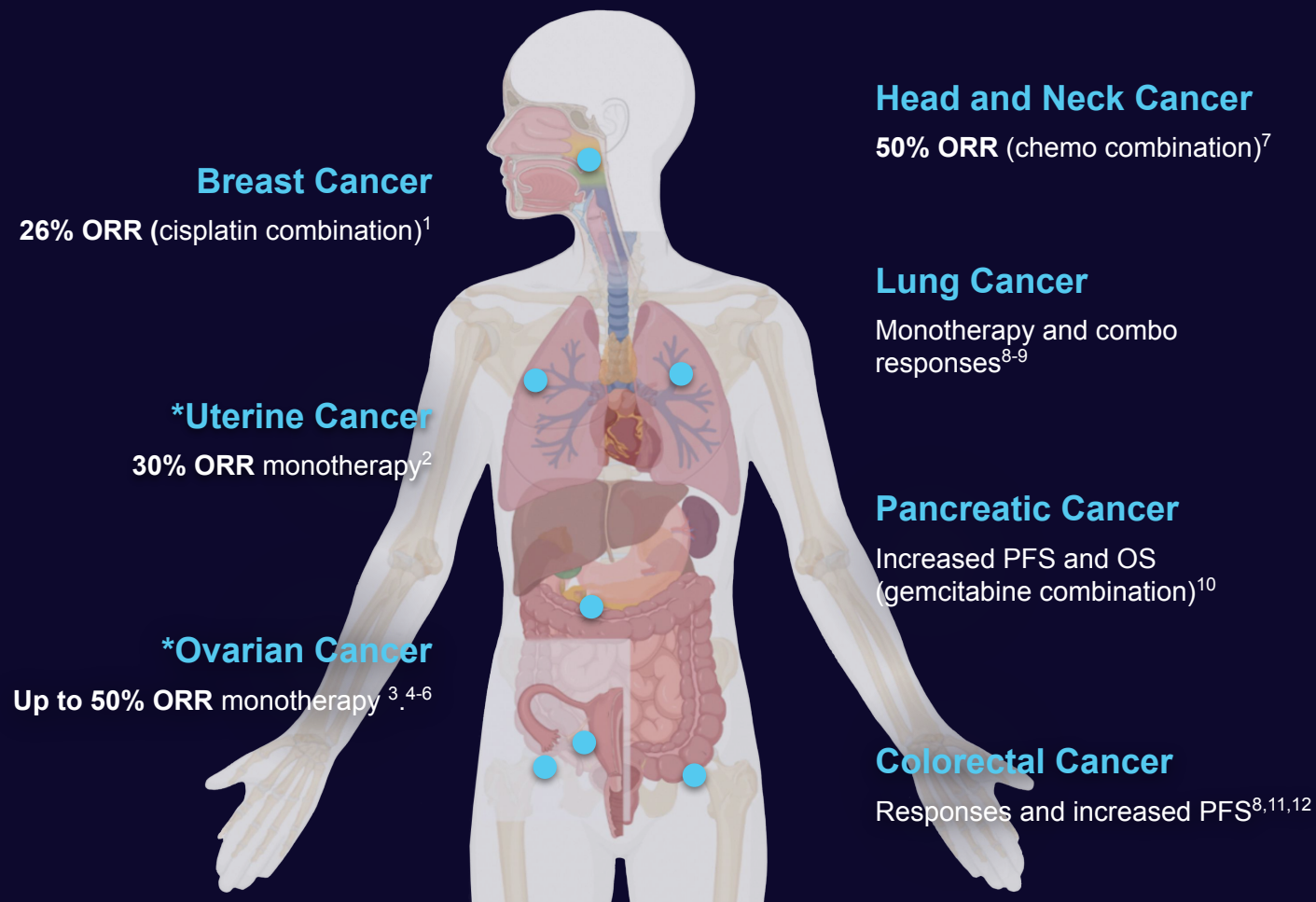
## Phase 1 study in AML or MDS ongoing

- Primary objectives: Evaluate safety, tolerability and RP2D
- Secondary objectives: Evaluate PK, preliminary anti-tumor activity
- Initial clinical data presentation expected 2H 2025

## Future opportunities

- Explore combination potential with existing and emerging agents
- Expansion opportunities in solid tumors

# Wee1 Inhibition Clinically Validated in 3<sup>rd</sup> Party Studies



## SGR-3515 Combines Wee1/Myt1 Activity

- Opportunity for improved therapeutic index
- Demonstrates durable activity from intermittent dosing in preclinical models<sup>13</sup>
- Myt1 activity offers opportunity to benefit from synthetic lethal relationship

<sup>1</sup>*Clin Cancer Res* 2021; 27(4). <sup>2</sup>*J Clin Oncol* 2021; 39(14):1531-1539. <sup>3</sup>*J Clin Oncol* 40, no. 16\_suppl (June 01, 2022) 5515.

<sup>4</sup>*Lancet* 2021; 398:281-92. <sup>5</sup>*J Clin Oncol* 2016; 34:4354-4361. <sup>6</sup>*Clin Cancer Res* 2018; 24(120): 2740-8. <sup>7</sup>*Clin Cancer Res* 2018; 24(12):2740-2748. <sup>8</sup>Zentalis investor deck. <sup>9</sup>*Ann Oncol* 2020; 31 (suppl\_4). <sup>10</sup>*J Clin Oncol* 2019 Oct 10;37(29).

<sup>11</sup>*Cancer Res* (2019) 79 (13\_Supplement): CT02. <sup>12</sup>*J Clin Oncol* 2021 Nov 20;39(33). <sup>13</sup>Sun et al., AACR 2022.



# SGR-3515 Status and Next Steps

## Strong mechanistic rationale

- Clinically validated target
- Potential benefit in wide range of tumor types

## Differentiated profile

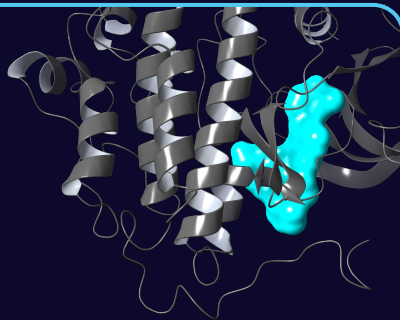
- Potentially superior Wee1/Myt1 potency, improved selectivity and lower drug-drug interaction liability in preclinical models
- Profile enables optimized dosing schedule to maintain anti-tumor activity and limit hematological toxicity<sup>1</sup>

## Phase 1 study in advanced solid tumors ongoing

- Primary objectives: Evaluate safety, tolerability and RP2D
- Secondary objectives: Evaluate PK, preliminary anti-tumor activity
- Initial clinical data presentation expected 2H 2025

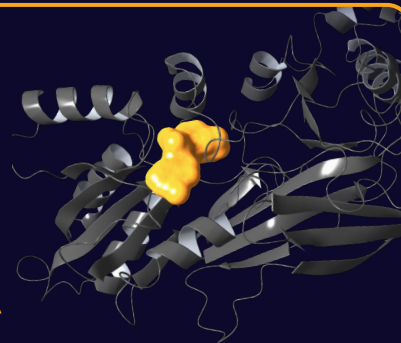
# Advancing Multiple Discovery Programs

## EGFR<sup>C797S</sup>



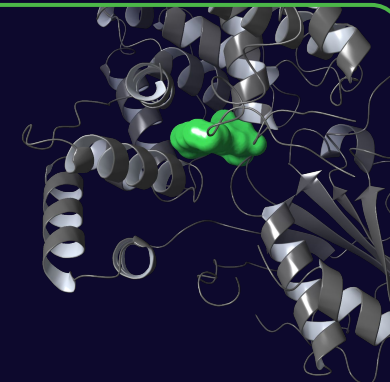
- Optimizing a wild-type-sparing, CNS-penetrant molecule\*
- Potential to address brain metastases and deepen responses through new combination regimens

## PRMT5-MTA



- Leads display MTAP<sup>KO</sup> selective anti-proliferative effects, and favorable solubility and ADME profiles\*
- Rapidly advancing novel, selective, potent molecules with optimized brain-penetration

## NLRP3



- Advancing leads in two series with excellent *in vivo* potency and ADME profiles
- Both peripheral and CNS penetrant leads being optimized

Expect to file at least one IND in 2025 from discovery pipeline

# Materials Science



# Leveraging Platform Synergies: Materials Science

- Materials Science business launched in 2012
- Leverages 30+ years of innovation in atomic-scale simulation solutions

## Initial Collaborations: Next-Gen Batteries



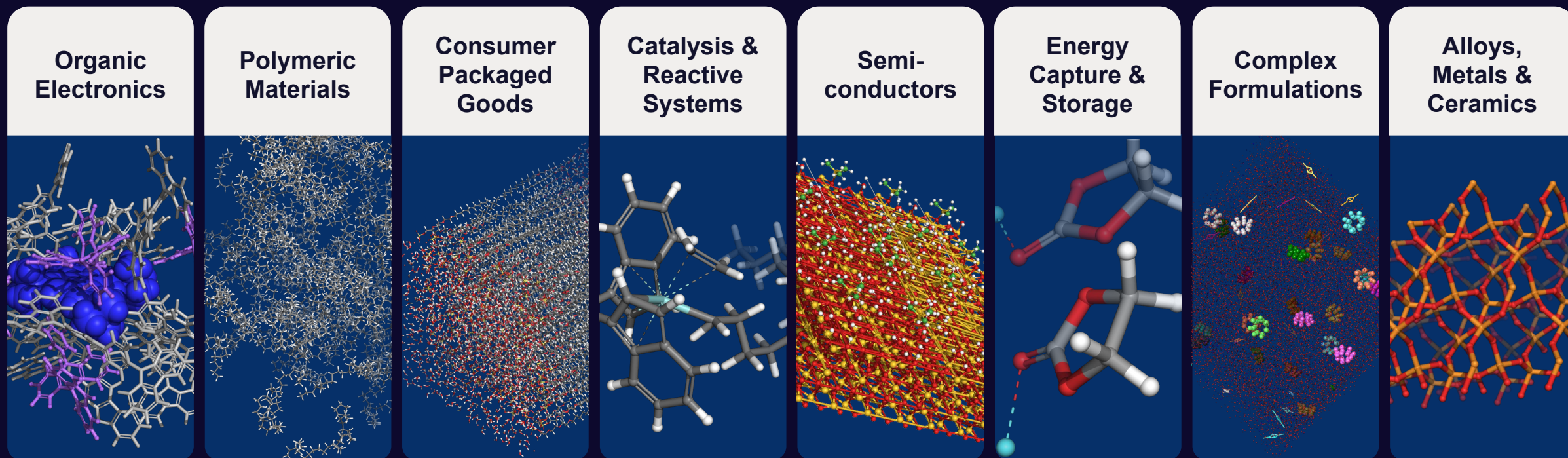
- Developing atomistic simulations to improve battery performance
- Agreement renewed for a second three-year term in 2023



- Accelerating materials discovery and design for next gen Li-ion batteries
- 3-year collaboration



# Platform Has Broad Application Across Industrial Materials Design and Development



Tailored solutions designed to reduce cost, risk, and shorten timelines



# Financial Overview



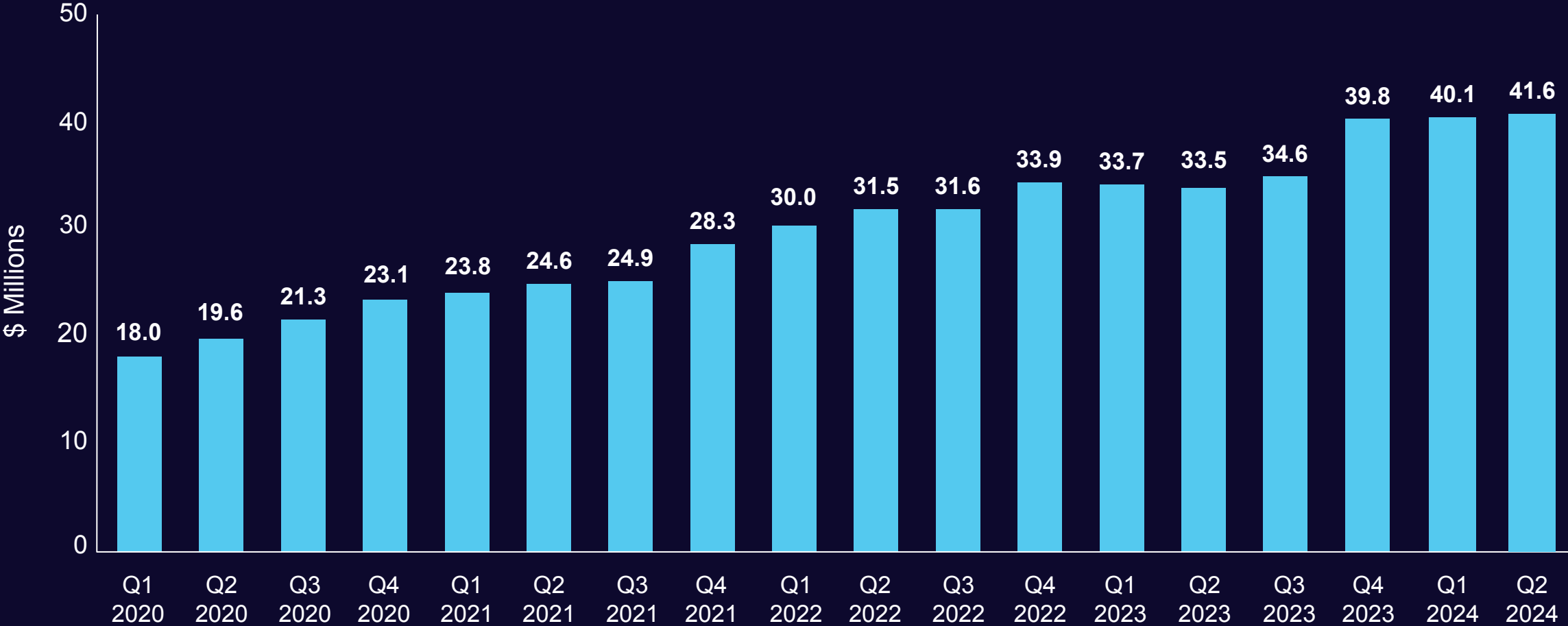
# 2Q24 Financial Highlights vs. 2Q23

Three Months Ended June 30

	2023	2024	% Change
<b>Total revenue</b>	<b>\$35.2</b>	<b>\$47.3</b>	<b>35%</b>
Software revenue	\$29.4	\$35.4	21%
Drug discovery revenue	\$5.8	\$11.9	104%
<b>Gross profit</b>	<b>\$13.8</b>	<b>\$31.3</b>	<b>127%</b>
<i>Software gross margin</i>	<i>77%</i>	<i>80%</i>	
<b>Operating expenses</b>	<b>\$74.9</b>	<b>\$84.1</b>	<b>12%</b>
Other (expense)/income	\$45.0	(\$1.2)	
<b>Net (loss) income</b>	<b>\$4.3</b>	<b>(\$54.0)</b>	
	as of 6/30/23	as of 6/30/24	
Cash and cash equivalents, restricted cash, and marketable securities	\$553.7	\$381.5	(31%)
Deferred revenue, current and long term	\$62.3	\$47.9	(23%)

(in millions)

# Four-Quarter Trailing Average Software Quarterly Revenue Trend



# 2024 Financial Guidance

(As of July 31, 2024)

	2023 Actual	Year-to-Date 2Q24	Updated 2024 Guidance
Total revenue	\$216.7	\$83.9	
Software revenue	\$159.1	\$68.8	6% – 13%
Drug discovery revenue	\$57.5	\$15.1	\$30 – \$35
Software gross margin	81%	78%	Below 2023*
Operating expense growth	28.4%	12.7%	8% – 10%
Cash used in operating activities	\$136.7	\$93.0	Above 2023

(in millions)

For the third quarter of 2024, software revenue is expected to range from \$32 million to \$34 million.

# 2023 Key Performance Indicators

**\$51M**

Total Annual Contract Value (ACV) of top 10 customers<sup>1</sup>

**>20X**

Difference in ACV between largest and smallest customer among the top 15 pharma companies<sup>2</sup>

**\$6.7M**



**\$3.5M**



**\$1.8M**



**\$1.4M**



1-5

6-10

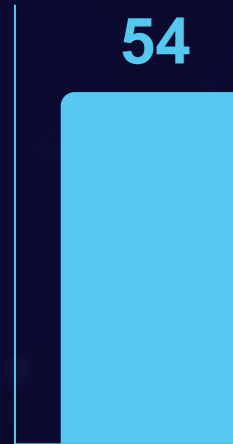
11-15

16-20

Average ACV of Top 20 Customers

# of customers

**54**



**27**



**4**



≥ \$500K

≥ \$1M

≥ \$5M

ACV segment<sup>3</sup>

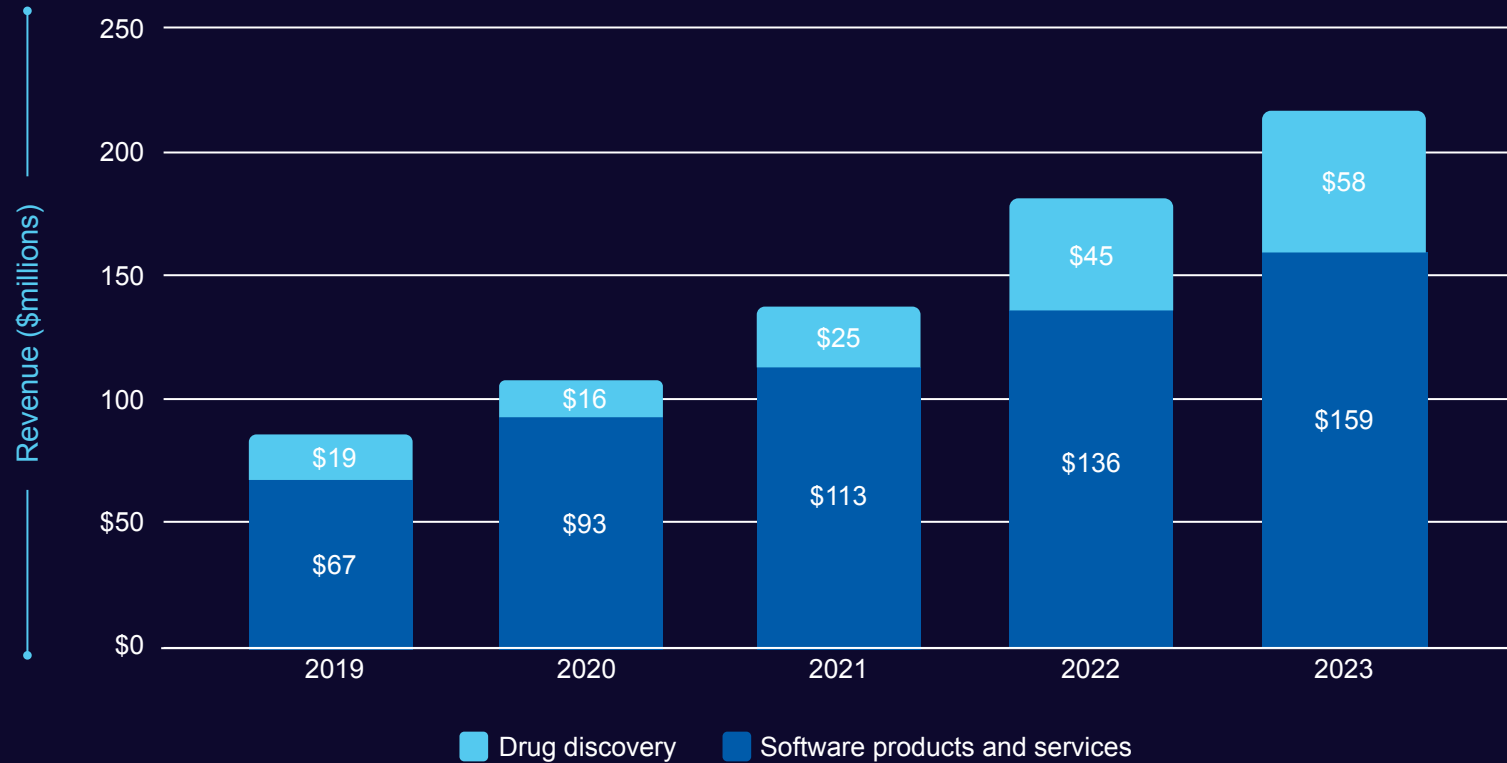
**98% retention rate<sup>3</sup>**



# Full Year 2023 Key Performance Indicators (KPIs)

	2022	2023
<b>Software KPI</b>		
Total annual contract value (ACV)	\$140.6M	\$154.2M
ACV of Top 10 Customers	\$46.5M	\$51.0M
Number of customers with ACV ≥\$5M	4	4
Number of customers with ACV ≥\$1M	18	27
Number of customers with ACV ≥\$500K	52	54
Number of customers with ACV ≥\$100K	227	222
Customer retention rate with ACV ≥\$500K	100%	98%
Customer retention rate with ACV ≥\$100K	96%	92%
Number of customers with ACV ≥\$1K	1,748	1,785
	as of 12/31/22	as of 12/31/23
<b>Drug Discovery KPI</b>		
Ongoing programs eligible for royalties	15	12
Number of collaborators since 2018	17	17

# Software and Drug Discovery Revenues: 2019-2023



**Drug discovery**  
2019-23 CAGR 32.3%

**Software**  
2019-23 CAGR 24.3%

Cash is supplemented by distributions and other considerations from our equity investments

\$0.9M

\$0.0M

\$20.3M

\$11.8M

\$147.2M

**Equity investments**  
\$180.2M distributed or received since 2019

# Capital Allocation Strategy Built on Proprietary Insights and Competitive Advantages in Computational Chemistry

Aiming to Generate Positive Returns from Deployment of Technology, Expertise and Capital

Opportunities that leverage:

## Validated Target or Development Goal

- Academia
- Entrepreneurs
- Investors
- Industry



Computation  
at Scale



Schrödinger  
Proprietary  
Technology



Schrödinger  
Scientific  
Team



Unique  
Scientific  
Insight or  
Observation

## Commercially Useful Innovation

- Proprietary Asset
- Venture / NewCo
- License IP / Program

# Strategic Priorities

- Drive full scale adoption of computational software platform
- Advance science underlying computational platform
- Expand portfolio of collaborations
- Achieve clinical proof of concept for proprietary programs
- Progress additional proprietary programs toward IND

# Timelines for Therapeutics Milestones

- Present initial clinical data from Phase 1 study of SGR-1505 in 1H 2025
- Present initial clinical data from Phase 1 study of SGR-2921 in 2H 2025
- Present initial clinical data from Phase 1 study of SGR-3515 in 2H 2025





**Schrödinger**

# **Pioneering Computational Molecular Design**

July 2024



# Appendix

**Annual Contract Value (ACV).** With respect to contracts that have a duration of one year or less, or contracts of more than one year in duration that are billed annually, ACV is defined as the contract value billed during the applicable period. For contracts with a duration of more than one year that are billed upfront, ACV in each period represents the total billed contract value divided by the term. ACV should be viewed independently of revenue and does not represent revenue calculated in accordance with GAAP on an annualized basis, as it is an operating metric that can be impacted by contract execution start and end dates and renewal rates. ACV is not intended to be a replacement for, or forecast of, revenue.

**Customer Retention for our customers with an ACV of at least \$500,000.** We calculate year-over-year customer retention for our customers in this cohort by starting with the number of such customers we had in the previous fiscal year. We then calculate how many of these customers were active customers in the current fiscal year. We then divide this number by the number of customers with an ACV of at least \$500,000 that Schrödinger had in the previous fiscal year to arrive at the year-over-year customer retention rate for such customers.