

## Deep Insights Impactful Medicines

March 2020

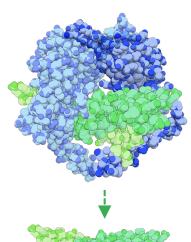
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Various statements in this presentation concerning Scholar Rock's future expectations, plans and prospects, including without limitation, Scholar Rock's expectations regarding its strategy, its product candidate selection and development timing, including timing for the initiation of and reporting results from its clinical trials for its product candidates, its disease indication selection and timing for such selection, the ability of SRK-015 to affect the treatment of patients suffering from Spinal Muscular Atrophy (SMA) either as a monotherapy or in conjunction with the current standard of care, the ability of SRK-181 to affect the treatment of cancer patients in a manner consistent with preclinical data constitute forward-looking statements for the purposes of the safe harbor provisions under The Private Securities Litigation Reform Act of 1995. The use of words such as "may," "might," "will," "should," "expect," "plan," "anticipate," "believe," "estimate," "target," "project," "intend," "future," "potential," or "continue," and other similar expressions are intended to identify such forward looking statements. Actual results may differ materially from those indicated by these forward-looking statements as a result of various important factors, including, without limitation, Scholar Rock's ability to provide the financial support and resources necessary to identify and develop multiple product candidates on the expected timeline, competition from others developing products for similar uses, the preliminary nature of interim clinical data, Scholar Rock's ability to obtain, maintain and protect its intellectual property, Scholar Rock's dependence on third parties for development and manufacture of product candidates including to supply any clinical trials, and Scholar Rock's ability to manage expenses and to obtain additional funding when needed to support its business activities and establish and maintain strategic business alliances and new business initiatives as well as those risks more fully discussed in the section entitled "Risk Factors" in the Quarterly Report on Form 10-Q for the guarter ended September 30, 2019, which is on file with the Securities and Exchange Commission, as well as discussions of potential risks, uncertainties, and other important factors in Scholar Rock's subsequent filings with the Securities and Exchange Commission. Any forward-looking statements represent Scholar Rock's views only as of today and should not be relied upon as representing its views as of any subsequent date. Scholar Rock explicitly disclaims any obligation to update any forward-looking statements unless required by law.

## Differentiated Approach to Highly Sought After Growth Factors Implicated in Devastating Diseases

## Scholar Rock's Target

**Growth Factor Precursor (Latent Form)** 



Targeting the activation of growth factor precursors to:

- Optimize potency and selectivity
- Localize effect

Traditional Target "Mature" Growth Factor

#### **Spinal Muscular Atrophy**

**SRK-015:** Inhibitor of latent myostatin activation

Phase 2 Trial Ongoing TOPAZ

### Immuno-Oncology

**SRK-181:** Inhibitor of latent TGFβ1 activation

Phase 1 Proof-of-Concept trial to initiate in 1Q20

#### **Fibrosis**

Inhibitors of latent TGFβ activation

Advancing collaboration with Gilead towards product candidate selection

Growing preclinical and clinical progress using Scholar Rock's differentiated approach

## 2019: Year of Execution and Progress

Advanced
SRK-015 Towards
Phase 2
Proof-of-Concept
Data

- Initiated and completed enrollment in TOPAZ Phase 2 proof-of-concept trial
  - 3 cohorts of patients with Type 2 and Type 3 SMA
- Announced compelling preliminary PK/PD data from TOPAZ trial
- Presented positive data from Phase 1 healthy volunteer trial

Accelerated SRK-181 Towards Phase 1 Proof-of-Concept Trial

- Filed SRK-181 IND to FDA and plan to initiate a Phase 1 POC trial in patients with solid tumors in 1020
- Presented highly encouraging preclinical data in immuno-oncology with potent and selective inhibitor of latent TGF $\beta1$  activation
- Completed pilot rat tox study and 4-week GLP tox studies in rats and non-human primates highlight the potential to administer and evaluate a wide dose range

Achieved First Milestone in Gilead Fibrosis Collaboration

- Advanced collaboration with successful demonstration of efficacy in preclinical in vivo proof-of-concept studies in fibrotic indications
- Earned \$25M milestone; eligible to receive up to an additional \$1,425M in potential payments from Gilead

SCHOLAR ROCK

## 2020/2021: Transformative Years with Multiple Planned Clinical Read-Outs

2H20

1Q20 Mid-2020

Interim efficacy and

safety results from

SRK-015 TOPAZ trial

completed for all 3

Initial clinical data from SRK-181

• Full 12-month

Top-line 12-month

results from

4Q20-1Q21

 Full 12-month treatment period

 Patients eligible to continue treatment

Clinical response and safety data from SRK-181 Phase 1 POC trial

Throughout 2021

· Part B clinical data

### Planned initiation of SRK-181 Phase 1 POC trial

- Two-part trial with dose escalation (Part A) and dose expansion cohorts (Part B)
- Patients with locally advanced or metastatic solid tumors
- Exhibit primary resistance to anti-PD-(L)1 antibodies
- Evaluate multiple cancers, such as urothelial carcinoma, melanoma, and NSCLC, in combination with an approved anti-PD-(L)1 therapy

cohorts in January<sup>†</sup>
• 6 months of

Enrollment

 6 months of treatment exposure from SRK-181 Phase 1 POC trial

 Part A clinical data, including biomarker data

> for an additional 12 months

†Preliminary demographics and baseline characteristics presented in a poster session at SMA Europe https://scholarrock.com/wp-content/uploads/2020/02/TOPAZ-Trial-Design-SMA-Europe-2020.pdf

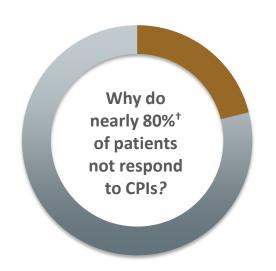
## Building Differentiated Pipeline; Pairing Revolutionary Approach with Proven Modality

	Discovery / Early Preclinical	Preclinical	Phase 1	Phase 2	Phase 3	Rights / Partner	Next Anticipated Milestones
rnal Proprietary Programs							
SRK-015 (Pro/Latent Myostatin) Spinal Muscular Atrophy (SMA)						SCHOLAR ROCK	Interim Efficacy and Safety Result: Mid-2020 TOPAZ
SRK-015 Myostatin-Related Disorders						SCHOLAR ROCK	Identify Next Indication in 2020
SRK-181 (Latent TGF61 Context Independent) Immuno-Oncology						SCHOLAR ROCK	Initiate Phase 1 Trial in Patients wi Solid Tumors in 1Q20
SRK-181 Oncology						SCHOLAR ROCK	
Immuno-Oncology (Latent TGF61 Immune Cell)						SCHOLAR ROCK	
Oncology (Latent TGF61 Immune Cell)						SCHOLAR ROCK	
Iron-restricted anemias (RGMc - BMP6 Signaling Pathway)				= = = = = = = = = = = = = = = = = = =		SCHOLAR ROCK	Nominate Product Candidate in 202
nered Programs							
Fibrosis (Latent TGF61 Context-Independent)						<b>Ø</b> GILEAD	
Fibrosis (Latent TGF61 / LTBP1 & LTBP3)						🌠 GILEAD	
Fibrosis (Undisclosed Program)						<b>Ø</b> GILEAD	
Oncology/Immuno-Oncology (Latent TGF61 / GARP)						Janssen Biotech, Inc.	

# SRK-181: Potential Transformative Backbone for a New Era of Cancer Immunotherapy



## Human Tumor Analyses Reveal TGFB as Key Determinant of Primary Resistance to Checkpoint Inhibitor (CPI) Therapies



### TGF\u00e31 creates "immune-excluded" tumor microenvironment

Nature (on-line), Feb. 14, 2018

#### TGF\(\beta\) attenuates tumour response to PD-L1 blockade by contributing to exclusion of T cells

Sanjeev Mariathasan<sup>1</sup>\*, Shannon J. Turley<sup>1</sup>\*, Dorothee Nickles<sup>1</sup>\*, Alessandra Castiglioni<sup>1</sup>, Kobe Yuen<sup>1</sup>, Yulei Wang<sup>1</sup>, Edward E. Kadel III<sup>1</sup>, Hartmut Koeppen<sup>1</sup>, Jillian L. Astarita<sup>1</sup>, Rafael Cubas<sup>1</sup>, Suchit Jhunjhunwala<sup>1</sup>, Romain Banchereau<sup>1</sup>, Yagai Yang<sup>1</sup>, Yinghui Guan<sup>1</sup>, Cecile Chalouni<sup>1</sup>, James Ziai<sup>1</sup>, Yasin Senbabaoğlu<sup>1</sup>, Stephen Santoro<sup>1</sup>, Daniel Sheinson<sup>1</sup>, Jeffrey Hung<sup>1</sup>, Jennifer M. Giltnane<sup>1</sup>, Andrew A. Pierce<sup>1</sup>, Kathryn Mesh<sup>1</sup>, Steve Lianoglou<sup>1</sup>, Johannes Riegler<sup>1</sup>, Richard A. D. Carano<sup>1</sup>, Pontus Eriksson<sup>2</sup>, Mattias Höglund<sup>2</sup>, Loan Somarriba<sup>3</sup>, Daniel L. Halligan<sup>3</sup>, Michiel S. van der Heijden<sup>4</sup>, Yohann Loriot<sup>5</sup>, Jonathan E. Rosenberg<sup>6</sup>, Lawrence Fong<sup>7</sup>, Ira Mellman<sup>1</sup>, Daniel S. Chen<sup>1</sup>, Marjorie Green<sup>1</sup>, Christina Derleth<sup>1</sup>, Gregg D. Fine1, Priti S. Hegde1, Richard Bourgon1 & Thomas Powles8

Article

### Cell

### **Genomic and Transcriptomic Features of Response** to Anti-PD-1 Therapy in Metastatic Melanoma

#### **Authors**

Willy Hugo, Jesse M. Zaretsky, Lu Sun, ..., Douglas B. Johnson, Antoni Ribas, Roger S. Lo Volume 165, Issue 1, 24 March 2016, Pages 35-44

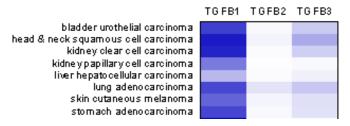
Clinically-derived rationale points to significant opportunity to increase checkpoint therapy responses

## Implicating TGF\(\beta\)1 as the Resistance Culprit and Selecting Preclinical Models with Clinically Relevant Features

## TGFβ1 is most likely driver of TGFβ pathway signaling in human cancers

- TGFβ1 most prevalent isoform in most human cancers
- TGFβ1 expression correlates with TGFβ pathway activity in tumors

## Cancer Genome Atlas RNAseq analysis of >10,000 samples spanning 33 tumor types†



## Matching syngeneic mouse tumor models to human tumor biology<sup>††</sup>

#### Phenotype of Resistant Human Tumors in αPD-(L)1 Therapies

- Immune exclusion
- Minimal or no response to anti-PD-(L)1
- High TGFβ1 over TGFβ2/3 expression
- Evidence for TGFβ signaling



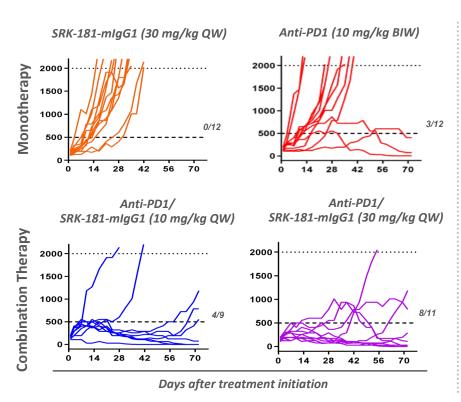
#### Selection Criteria for Mouse Tumor Models

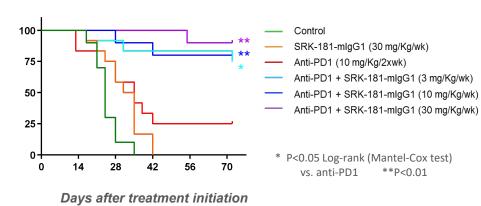
- Immune exclusion
- Minimal or no response to anti-PD-(L)1
- High TGFβ1 over TGFβ2/3 expression
- Evidence for TGFβ signaling

Aim to pick the right target and improve likelihood of translatability from preclinical models to patients

## TGFβ1 Blockade with SRK-181-mlgG1 Rendered Preclinical Tumor Models Susceptible to Anti-PD1 Therapy

#### Cloudman S91 melanoma model: Combination treatment led to tumor regression and survival benefit





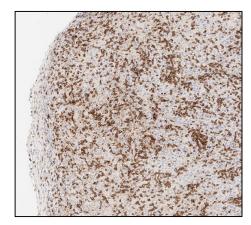
Similar results demonstrated in bladder model and breast cancer model (TGFβ1/3 co-expressing)

## SRK-181-mlgG1 Combination Therapy Enabled Infiltration and Expansion of CD8<sup>+</sup> T cells

Anti-PD1



Anti-PD1/SRK-181-mlqG1 (10 mq/kq) led to increase in CD8+ cells



Turning "cold" tumors "hot," and reduction in suppressive myeloid cells are consistent with significant anti-tumor responses

#### In preclinical bladder cancer model, combination treatment with SRK-181-mlgG1/anti-PD1 led to:

- Significant increase in effector T cells (p<0.05)</li>
  - Expansion of CD8+ population to an average of 34% of the tumor's immune cells from a control average of 3.5%
- Significant decrease in intratumoral immunosuppressive myeloid cells (p<0.05)
  - Reduction in TAM/MDSC population to 14% of the tumor's immune cells from a control average of 47%
  - Reduction in MDSC population to 1.4% from 11% of CD45+ cells in the IgG control group

## TGFβ1 Isoform Specificity of SRK-181 Improved Preclinical Toxicity Profile

Microscopic observations in heart	Control vehicle iv, qwk x 4	LY2109761 300 mg/kg po, qd x 8	PanTGFβAb 30 mg/kg iv, 1 dose	10 mg/kg iv, qwk x 4	SRK-181 30 mg/kg iv, qwk x 4	100 mg/kg	Legend Unremarkable Minimal
Valvulopathy							Slight
Atrium - Mixed cell infiltrate							Moderate
Myocardium - Degeneration/necrosis							
Myocardium - Hemorrhage							
Myocardium - Mixed cell infiltrate, base							
Coronary artery - Necrosis with inflammation							
Cardiomyocyte - Necrosis/inflammatory cell infiltrate							

#### Repeat dose pilot toxicology study in adult female Sprague Dawley rats:

- Cardiac findings were exhibited in animals dosed with a pan-TGFβ antibody or LY2109761 (inhibitor of ALK5, common TGFβ receptor kinase) as expected based on published data<sup>†</sup>
- No cardiotoxicities (valvulopathy) were noted with SRK-181
  - NOAEL for SRK-181 was the highest dose evaluated of 100 mg/kg QW

#### 4-week GLP toxicology studies:

- Rats: NOAEL for SRK-181 was up to highest evaluated dose of 200 mg/kg QW
- Non-human primates: NOAEL for SRK-181 was up to highest evaluated dose of 300 mg/kg QW

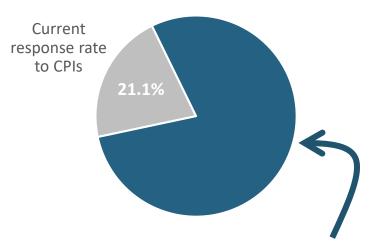
Selectivity of SRK-181 offers potential to overcome toxicity and dose-limiting challenges of non-selective TGFB pathway approaches

## SRK-181 Has Potential to Increase Response to CPIs Through Clinically Relevant Resistance Pathway

Market for checkpoint inhibitor therapies expected to double over the next few years<sup>†</sup>...



## ...Yet Medical Need Not Addressed by Current Era of Immunotherapy<sup>††</sup>:



SRK-181 has potential to substantially increase the addressable patient population for all checkpoint therapies

<sup>†</sup>Source: Company information, Wall Street research, Evaluate Pharma

## Phase 1 Trial to Evaluate SRK-181's Ability to Overcome Primary Resistance to CPIs

### Phase 1 Proof-of Concept Trial

#### SRK-181: potent and selective inhibitor of TGFβ1 activation

- Evaluate as a cancer immunotherapy in combination with anti-PD-(L)1 antibodies
- Exhibit primary resistance to anti-PD-(L)1 antibodies
- Patients with locally advanced or metastatic solid tumors
- Focus on cancers for which checkpoint inhibitors are approved, such as urothelial carcinoma, melanoma, and non-small cell lung

#### Two-part clinical trial:

Part A: Dose escalation – single agent and in combination with an approved anti-PD-(L)1

**Part B: Dose expansion** – multiple tumor-specific cohorts evaluating SRK-181 with an approved anti-PD-(L)1

**Initiate Phase 1 trial in 1Q20** 

Initial clinical data from Part A (including biomarker data) in 2H20

Clinical response and safety data in 2021

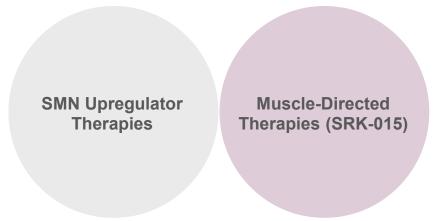
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# SRK-015: Potential First Muscle-Directed Therapy for Spinal Muscular Atrophy



### Significant Unmet Need Remains Despite Current Therapies

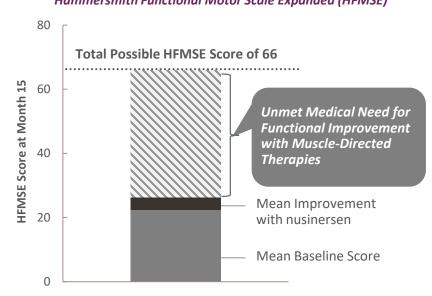
## Muscle-Directed Therapies Needed to Complement Disease-Stabilizing Benefits of SMN Upregulators\*



Address SMN deficiency to prevent further motor neuron deterioration

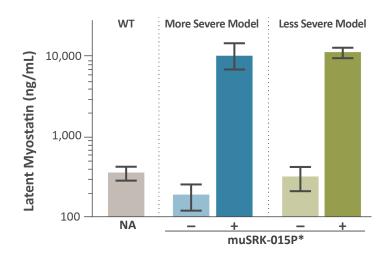
Act directly on muscle with aim to improve motor function

## Muscle Function in SMA (Human) Hammersmith Functional Motor Scale Expanded (HFMSE)

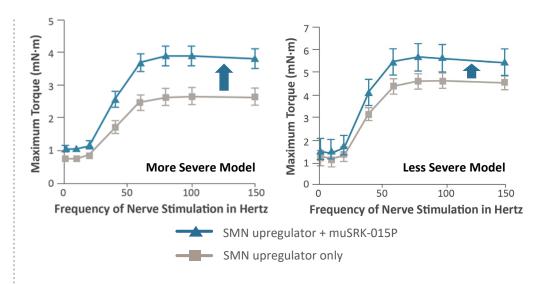


Mean improvement in HFMSE score experienced by patients with later-onset SMA in the Phase 3 CHERISH clinical trial of nusinersen

## Treatment of SMNA7 Mouse Models Show Improvement in Muscle Strength



- Achieved multi-fold increase in serum latent myostatin levels indicating target engagement
- · Confirms presence of target in disease setting
- Lower latent myostatin levels in the SMA group may be attributable to reduced overall muscle mass

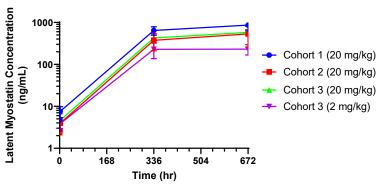


#### **Treatment improved muscle strength:**

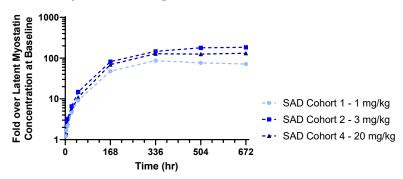
- Maximal torque of the plantar flexor muscle group increased:
  - More severe model: 44%-51%
  - Less severe model: 20%-30%

## Preliminary TOPAZ Biomarker Data Provide First Demonstration of Target Engagement in Patients with SMA

#### Latent Myostatin Change over Baseline in SRK-015 TOPAZ Trial



#### **Latent Myostatin Change over Baseline in Phase 1 HV Trial**



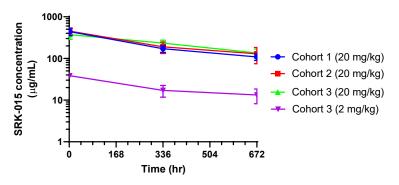
#### **Robust Target Engagement Observed**

- ~100-fold increases in serum latent myostatin levels following single 20 mg/kg dose in all cohorts of TOPAZ
- Confirms presence of latent myostatin in patients with SMA

#### Well-Behaved, Linear PK Profile

- Minimal variability across TOPAZ cohorts
- Dose proportional increase in serum drug exposure between low (2 mg/kg) and high (20 mg/kg) doses

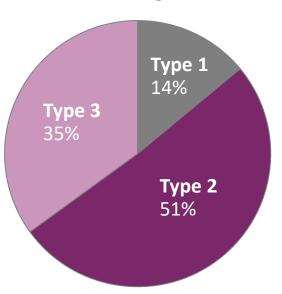
#### Preliminary TOPAZ Phase 2 Pharmacokinetic (PK) Data



## SRK-015 Opportunity in Spinal Muscular Atrophy

### Overall Prevalence of 30,000-35,000 in U.S. and Europe

Relative Prevalence Among Patients Living With SMA



#### **Type 1:**

Infant-onset; often fatal

### Type 2 and non-ambulatory type 3:

- Later-onset but still early childhood
- Severe deficits in motor function

#### Ambulatory type 3:

Limited mobility and substantial morbidity

#### *Type 4:*

Population not well-characterized

#### **Focus of TOPAZ Trial**

Potential to use SRK-015 in conjunction with SMN upregulators

Potential to use SRK-015 as monotherapy or in conjunction with SMN upregulators

...potential to expand more broadly in future trials

### SRK-015 Phase 2 Trial Design



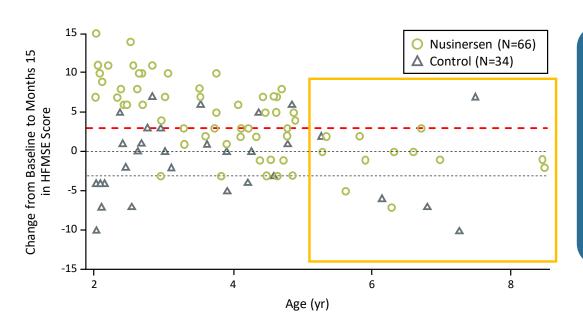
#### Interim 6-Month Efficacy and Safety Results Mid-2020; Top-line 12-Month Data 4Q20/1Q21

		Cohort 1		Cohort 2		Cohort 3
Design	•	N= 23 <sup>++</sup> ; ages 5-21 Open-label, single-arm 20 mg/kg SRK-015 IV Q4W 12-month treatment period	•	N= 15; ages 5-21 Open-label, single-arm 20 mg/kg SRK-015 IV Q4W 12-month treatment period	•	N= 20; ages ≥2 Double-blind, randomized (1:1) to 2 mg/kg or 20 mg/kg SRK-015 IV Q4W 12-month treatment period
Patients	•	Ambulatory Type 3 SMA Receiving treatment with approved SMN upregulator or as monotherapy	•	Type 2 or non-ambulatory Type 3 SMA Receiving treatment with approved SMN upregulator	•	Type 2 SMA Initiated treatment with approved SMN upregulator before age 5
Primary Objectives	•	Safety Mean change from baseline in RHS	•	Safety Mean change from baseline in HFMSE	•	Safety Mean change from baseline in HFMSE

Each cohort evaluates a subpopulation that is sizable and has substantial unmet medical need

### Later-Onset SMA: High Unmet Need to Improve Motor Function

#### **Nusinersen CHERISH Trial in Later-Onset SMA**



## In patients with later-onset SMA who were age $\geq$ 5 at screening...

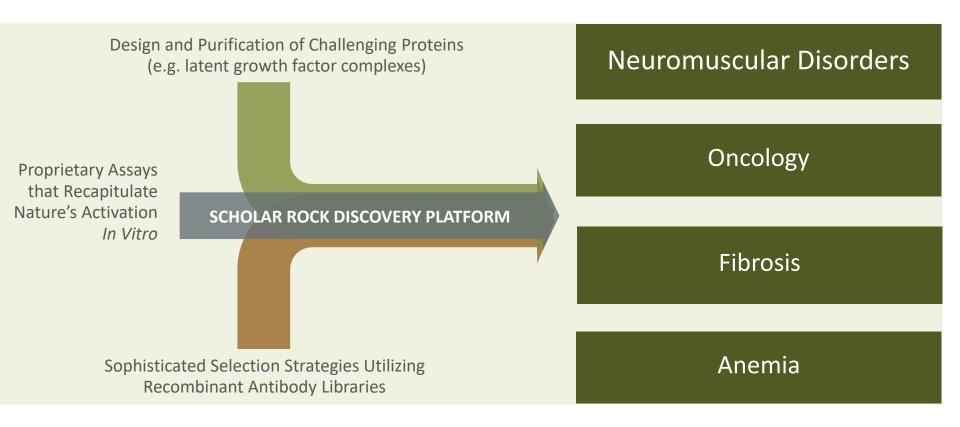
- Primary benefit of nusinersen appeared to be stabilization of motor function (in HFMSE) rather than improvement from baseline
- Attainment of <u>></u> 3-point increase was rare (<15% of patients) even with nusinersen treatment

3-point improvement in a patient is considered clinically meaningful and rare to observe

# Building Differentiated Pipeline Through Highly Productive Platform



## Proprietary Platform to Target Latent Growth Factor Activation



## Fibrosis Partnership with Gilead Advances with Achievement of First Milestone

## Scholar Rock's highly specific inhibitors of latent TGFβ activation:

- Aim to improve efficacy and tolerability compared to traditional non-selective approaches
- Demonstrated efficacy in *in vivo* preclinical models

Upfront cash and equity investment:

\$80 million\*

One-time preclinical milestone:

\$25 million

(achieved end of 2019)

Additional milestones across 3 programs:

Up to \$1,425 million

High single- to low double-digit tiered royalties on net sales



- Antibody discovery and preclinical research thru product candidate nomination
- Distinct antibodies
- Retains exclusive WW rights for oncology and cancer immunotherapy



 Upon option exercise, responsible for preclinical and clinical development and commercialization

TGF6-driven signaling broadly implicated as a central regulator of fibrosis

## **Upcoming Key R&D Milestones**

### Spinal Muscular Atrophy (SMA)

- Interim efficacy and safety results from SRK-015 TOPAZ Phase 2 trial in mid-2020
  - All 3 fully enrolled cohorts with 6 months of treatment exposure
- Top-line results (12 months) from SRK-015 TOPAZ trial in 4Q20-1Q21
  - Patients are eligible to continue treatment for additional 12 months
- Identification of second indication for SRK-015 in 2020

### Oncology

- Initiate SRK-181 Phase 1 proof-of-concept trial in patients with solid tumors in 1Q20
  - Patients that exhibit primary resistance to anti-PD-(L)1 antibodies
  - Evaluate multiple tumor types in combination with an approved anti-PD-(L)1 therapy
- Initial clinical data, including biomarker data, from SRK-181 Phase 1 POC trial in 2H20
- Clinical response and safety data from SRK-181 Phase 1 POC trial throughout 2021
- Continue to advance active discovery programs for context-dependent inhibition of TGFβ1

#### **Fibrosis**

• Continue to advance collaborative programs with Gilead towards product candidate selection

#### **Anemias**

Nominate product candidate in RGMc program in 2020

## Appendix



## Our Purpose

Relentlessly focused on seeing new possibilities in validated biologies and antibody technologies to allow us to move with speed and urgency to deliver transformative medicines to patients with devastating diseases

## SCHOLAR ROCK

### **Revolutionary Approach**

- First company to successfully target growth factor precursors
- · Pursue high value targets proven challenging for traditional non-selective approaches
- Focus on biologically validated targets using proven modality (mAbs)
- Leverage protein science and antibody expertise to develop high-impact medicines for patients suffering neuromuscular disorders, cancer, fibrosis and anemia
- Develop broad IP portfolio covering compositions and methods

### **Differentiated Pipeline Portfolio**

- Two lead product candidates, SRK-015 and SRK-181, in clinical development in 2020
- Multiple clinical read-outs offer near-term value inflection points
- Potential to expand pipeline with additional indications for each product candidate
- Strategic fibrosis collaboration with Gilead to develop potent and selective inhibitors of latent TGFβ activation
- Applying expertise across the TGFβ superfamily of growth factors and beyond

## Differentiated Approach with SRK-181

- Fully human mAb
- Potent and selective inhibitor of latent TGF61 activation
- Minimal or no binding to latent TGF62 and TGF63 isoforms
- Designed for exquisite selectivity for TGF81 to avoid the cardiac tox often seen with traditional, lessselective approaches



## Strong preclinical data shows potential of SRK-181 in overcoming primary resistance to checkpoints

- ~80% of patients with metastatic solid tumors do not respond to CPIs<sup>†</sup>
- Strong human translational data and preclinical models implicate TGFβ as key culprit in primary resistance to CPIs<sup>††</sup>
- Exquisite selectivity of SRK-181 offers potential to reduce toxicity and avoid dose-limiting challenges
- Rationally designed preclinical studies demonstrate potential of SRK-181 in overcoming primary resistance

#### SRK-181 IND submitted; plan to initiate Phase 1 POC trial in 1Q20

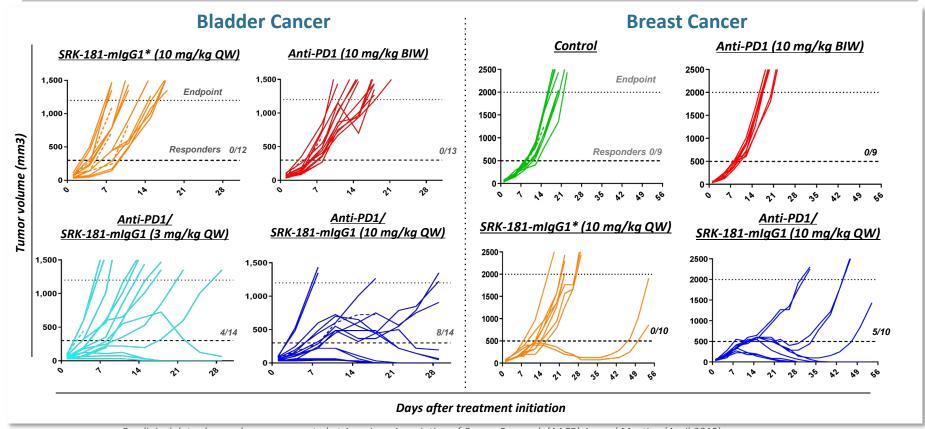
Opportunities for clinical data in 2H20 and 2021

## Preclinical efficacy and safety results point toward a clinically feasible path forward

Refer to posters presented at SITC (Nov 2018) available at <a href="https://scholarrock.com/wp-content/uploads/2018/11/SITC-2018-Poster-FINAL-2018-11-09.pdf">https://scholarrock.com/wp-content/uploads/2018/11/SITC-2018-Poster-FINAL-2018-11-09.pdf</a> and AACR (April 2019) available at <a href="https://scholarrock.com/wp-content/uploads/2019/04/2019-AACR-Defeating-primary-checkpoint-resistance-SRK-181.pdf">https://scholarrock.com/wp-content/uploads/2018/11/SITC-2018-Poster-FINAL-2018-11-09.pdf</a> and AACR (April 2019) available at <a href="https://scholarrock.com/wp-content/uploads/2019/04/2019-AACR-Defeating-primary-checkpoint-resistance-SRK-181.pdf">https://scholarrock.com/wp-content/uploads/2019/04/2019-AACR-Defeating-primary-checkpoint-resistance-SRK-181.pdf</a>

<sup>†</sup>Source: Carretero-Gonzalez et al. (2018) Oncotarget 9:8706-8715 ††Source: Mariathasan, Turley, et.al *TGF6 attenuates tumour response to PD-L1 blockade by contributing to exclusion of T* 28 *cells. Nature (online).* Feb 2018

## TGF\u00e31 Blockade with SRK-181-mlgG1 Rendered Preclinical Tumor Models Susceptible to Anti-PD1 Therapy



## SRK-015: Selective Inhibitor of Latent Myostatin Activation

- Fully human mAb
- Half-life of 23-33 days
- Orphan Drug Designation for SMA granted by FDA and EC
- Strong patent portfolio:
  - US Patent 9,758,576 covers mAbs that inhibit the activation of myostatin precursor (expiry in 2034)
  - US Patent 10,287,345 covers treatment methods for various myostatin-related conditions (expiry in 2037)



## Preclinical and clinical data provide strong rationale for developing in Spinal Muscular Atrophy (SMA)

- Need to improve motor function remains despite the availability of SMN upregulators for the treatment of SMA
- SMA disease features align well with attributes of myostatin biology
- Studies in SMNΔ7 mouse models demonstrated substantial increases in muscle strength
- Emerging pharmacologic profile for SRK-015 supports chronic therapy:
  - Evaluating Q4W dosing regimen
  - Phase 1/Phase 2 prelim. PD data show robust target engagement
  - No clinically significant safety signals observed as of data cutoff in preliminary Phase 2 PK/PD analysis

#### TOPAZ Phase 2 trial enrollment completed; Interim 6-month data mid-2020

- Top-line 12-month analysis anticipated 4Q20/1Q21

## Therapeutic potential as muscle-directed therapy to complement any SMN upregulator

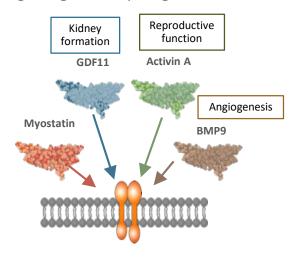
Source: Mercuri, E. et.al. Nusinersen versus Sham Control in Later-Onset Spinal Muscular Atrophy, N Enal J Med 2018: 378:625-635

Refer to Phase 1 data poster at World Muscle Society (Oct 2019) at www.scholarrock.com As of November 2019. Refer to press release announcing preliminary PK/PD data (Nov 19, 2019) at https://investors.scholarrock.com/news-and-events/press-releases

### Traditional Approaches Can Raise Significant Safety Concerns

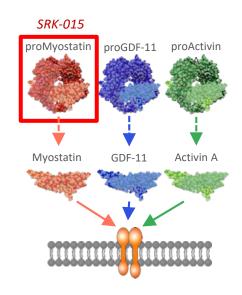
#### **Traditional Approaches Lack Selectivity**

- Most inhibitors of active myostatin also inhibit
   GDF11 and may inhibit other growth factors as well
- Antibodies to ActRIIb and ligand trap approaches inhibit signaling of multiple ligands



### **Scholar Rock Approach**

## **Exquisite Selectivity By Targeting Precursor Form of Myostatin**



## Strategic collaboration focused on fibrosis

Gilead has exclusive options to license worldwide rights to product candidates from 3 TGF6 programs:

- Inhibitors that target activation of latent TGF61
- Inhibitors that selectively target activation of latent TGF61 localized to extracellular matrix
- Undisclosed TGF6 discovery program



## Potent and Selective Inhibitors of Latent TGFβ Activation Can Offer Novel Approach to Fibrotic Diseases

- TGFβ-driven signaling has been broadly implicated as a central regulator of fibrosis<sup>†</sup>
- Scholar Rock's potent and highly selective TGF $\beta$  inhibitors act locally in the disease microenvironment
- Demonstrated preclinically that potent and selective inhibitors of TGF $\beta1$  signaling prevent the activation of the growth factor in the fibrotic matrix
- Achieved first milestone and earned \$25 million payment with demonstration of efficacy in in vivo proof-of-concept studies

Advance collaboration towards product candidate selection