

# NRX Pharmaceuticals Inc (NRXP, Buy, \$25 PT)

NRXP from the Road. HOPE Roll-Out Suggests a Strong Appetite for Shorter Treatments That Address Serious ASIB, PTSD and TRD.

**WHAT YOU SHOULD KNOW:** We hosted a full day of investor meetings with NRX Pharma management. The most interesting new area of discussion was the interest in HOPE clinics that can provide abbreviated treatment regimens (weeks not months) to high risk emergency workers such as first-responders, police officers and military personnel (personnel often covered by the TRICARE network for first-responders). These treatment approaches often involve either **combination therapies (that synergize to increase neuroplasticity)** or relatively underused approaches backed by recently generated supportive data (such as the use of hyperbaric oxygen therapy for PTSD). The positive reception to these offerings seems an ideal match to the greater plans of the HOPE network. HOPE is working to aggregate high quality ketamine centers into a network of treatment centers that offers novel drugs (as they are approved) and novel drug combinations (as they are validated) to patients with crippling afflictions often involving some level of increased suicidal risk (ASIB). HOPE is in the early stages of growth with three centers currently owned and three more possible by year-end - but we see the activity to date as supportive of the framework and **management seems confident of considerable growth of HOPE in 2026**. The ongoing ANDA for a preservative free ketamine (KETAFREE) now has a generic PDUFA date (termed GDUFA) of July 29, 2026. The FDA has called the ANDA "substantially complete" suggesting the final steps involve low-risk updates on issues such as stability. ANDA approval of this ketamine is likely to be a modest advance at first as the preservative-free nature clearly seems positive, but the burgeoning ketamine world is clearly surviving with the old formulation. However, over time, we expect a quality KETAFREE distribution channel can chip away at this \$750M market simply by "being there" to soak up market share, based on the continued occurrence of ketamine shortages that have plagued the current mostly-foreign distribution channel. A major advance for KETAFREE might come from the citizen's petition that NRXP has filed to have preservative containing ketamine banned from the market (the included preservative is not GRAS and has been removed from other products). The **biggest catalyst for NRXP is likely the bona-fide NDA** for KETAFREE that could allow ketamine to finally be approved for what it is mainly used for (MDD, TRD, PTSD and ASIB). We see owning "on label" ketamine as a compelling advance as the company works to get additional ketamine clinics to join the HOPE network. This NDA is nearing completed submission (CMC is complete and also supports the ANDA) based on three trials for depressed patients with ASIB that NRXP has assembled (acquired patient level data) plus real world records from about 65,000 patient treated with the drug for serious indications. We see this package as overall compelling as ketamine is active in the proposed indications and already broadly used (off label). As a result, we see assembly of the supportive clinical data as the key deliverable, and we understand if management is leaving no stone un-turned to assemble a pristine package.

- **ANDA and NDA.** Both the ANDA and the NDA filings are innovative in some of their details at a time when the FDA seems in flux - so a target action date helps gauge progress. The arguments for KETAFREE look compelling with a formulation that removes a preservative that is both questionable in its own safety and irrelevant to the product in the world of single use vials. The company has plans to manufacture at least one million doses ready to ship by July, in addition to ... **Continued on P3**
- **Valuation:** We value NRXP using a DCF (20.0% discount rate and a 1.5% TG rate).

PLEASE READ: IMPORTANT DISCLOSURES AND ANALYST'S CERTIFICATION APPEAR IN APPENDIX

WWW.BTIG.COM



December 9, 2025

Thomas Shrader, PhD, CFA  
(212) 527-3551 [tshrader@btig.com](mailto:tshrader@btig.com)

Jinnie Kim, PhD  
(212) 882-2344 [jinnie.kim@btig.com](mailto:jinnie.kim@btig.com)

Company Data	
Closing Price	\$2.26
Price Target	\$25.00
Market Cap (M)	63.50
Shares Out (M)	28.10
Avg Daily Vol-3 Months (M)	0.46

Revisions		
	Previous	Current
Rating	Buy	Buy
Price Target	\$25.00	\$25.00
FY25E EPS	(0.28)	(0.28)
FY26E EPS	0.19	0.19
FY25E NI	(6.24)	(6.24)
FY26E NI	6.13	6.13

EPS (GAAP)			
FY Dec	2024A	2025E	2026E
Q1	(0.74)	(0.34)A	(0.14)
Q2	(0.75)	(0.98)A	(0.01)
Q3	(0.15)	(0.26)A	0.09
Q4	(0.72)	0.25	0.19
<b>FY EPS</b>	<b>(2.36)</b>	<b>(0.28)</b>	<b>0.19</b>
FY P/E	-	-	11.9x

Net Income			
FY Dec	2024A	2025E	2026E
Q1	(6.53)	(5.51)A	(3.78)
Q2	(7.90)	(17.58)A	(0.15)
Q3	(1.62)	(5.89)A	3.25
Q4	2.10	8.22	6.81
<b>FY NI</b>	<b>(25.13)</b>	<b>(6.24)</b>	<b>6.13</b>

Source: FactSet, BTIG Estimates and Company Documents reported as \$ currency.  
FY = Fiscal Year CY = Calendar Year

## Investment Thesis

We believe the value in NRXP is based on the combination of developing novel therapeutics for ASIB and the integration of these therapeutics into the HOPE Therapeutics network. The drug development component of NRXP seems relatively de-risked as both NRX-100 and NRX-101 are known molecules or their combinations and significant data already exist supporting both their efficacy and safety. On the broader integration front, The HOPE Therapeutics network is currently being assembled as NRx's treatment arm with an eye toward eventually spinning the effort out as an independent company. The hope for HOPE is first to maximize the patient experience with ketamine to include proper monitoring in order to reduce the chances of bad "highly dissociative" experiences as well as to employ a better (preservative-free) branded version of ketamine (NRX-100). In addition, HOPE will offer other state-of-the-art treatments such as modern TMS (based on the new coil technologies). The overall hope is to maximize the remission rates for ASIB patients as TMS and ketamine each deliver ~50% remission rates in quality centers and combination remission rates are expected to eclipse 80%. Upcoming catalysts include NRXP's progress in completing the FDA submission for NRX-100 and NRX-101 and resulting FDA feedback leading to FDA approvals starting around YE25.

## Upcoming Catalysts

- NRX-100 (IV Ketamine) for Suicidal Depression - Completion of NDA filing - YE2025
- NRX-101 (NMDA and 5-HT<sub>2A</sub>) - NDA submission for the potential accelerated approval by YE2025
- KETAFREE ANDA goal GDUFA date - July 29, 2026

## Base Case Assumptions: \$25 Price Target

- **NRX-100** for Suicidal Depression - 60% POS, 2026 market entry, 10% peak penetration for Bipolar patients with suicidality, 7% peak penetration for persistent MDD patients with suicidality, \$4K price.
- **NRX-101** for Bipolar Depression with Akathisia - 50% POS, 2027 market entry, 25% peak penetration for Bipolar patients in treatments who experience akathisia, \$4K price.
- **Hope** therapeutics - Average yearly revenue per clinic = \$4M, 30% profit margin.

## Upside Scenario

- Accelerated approval granted by the FDA for NRX-101
- Accelerated approval granted for the ketamine ANDA
- Faster rate of acquisitions of new clinics into the Hope Therapeutics network

## Downside Scenario

- FDA asks for additional trials for NRX-100 and NRX-101
- Slower rate of acquisitions of new clinics into the Hope Therapeutics network

## Price Performance




## Company Description

NRx is developing NRX-100 (IV Ketamine) and NRX-101 (DCS and Lurasidone) for suicidal depression and bipolar depression with akathisia, respectively. Both compounds are backed by robust clinical data demonstrating the efficacy and safety.

- ...their pre-commercial lots already manufactured. NDA for ketamine is expected to be completed soon around YE25, and the company hopes the submission will occur under a new voucher system that guides to ~2 month approval (CNPV). Cash runway to mid-2026 should cover this process where a better ketamine approved for the depression-class indications (MDD, TRD, ASIB) could leave the company in an attractive position. NRx also plans to supplement the three clinical studies with real world data of 65,000 patients supporting the use of ketamine in depression. We see this as likely to result in approval as it would allow the FDA to begin to clean up the ketamine world and bring the use of the drug into a safer state. Supporting this idea, earlier the FDA has waived the filing fee for the NRX-100 NDA (a direct saving of a few million dollars) and granted it Fast Track Designation (FTD).
- **NRX-101 NDA and the HOPE Network.** On the NRX-101 front, an NDA has been initiated, and the drug also has BTI. NRX-101 seems another example of the type of more complete therapy that is at the heart of the HOPE clinic rollout. Briefly, the promise of the D-cycloserine (DCS) component of NRX-101 was recently demonstrated in a study reporting strong synergies between DCS and Transcranial Magnetic Stimulation (TMS). A single visit protocol called ONE-D achieved an 87% response and 72% remission from severe depression at 6 weeks post procedure. The reported results need to be backed up with larger studies, but with 500+ ketamine clinics in each of NY, CA, FL, and TX all looking for additional procedures to offer, the promise of DCS seems to be building. How these results dovetail with the rolling NDA for NRX-101 is a work in progress, but the efforts are likely independent of the ketamine developments as that drug has less synergy with TMS.

## INCOME STATEMENT

 Thomas Shrader 212.527.3551											
NRX PHARMACEUTICALS, INC. (NRXP) Income Statement											
Period Ending	Dec-20	Dec-21	Dec-22	Dec-23	Dec-24	Mar-25	Jun-25	Sep-25	Dec-25	Dec-25	Dec-26
SUSD ('000s)	2020A	2021A	2022A	2023A	2024A	1Q25A	2Q25A	3Q25A	4Q25E	2025E	2026E
<b>Revenue</b>											
NRX-100 for Suicidal Depression (60% risk adjusted)					-				-	-	858
NRX-101 for Bipolar Depression with Akathisia (60% risk adjusted)					-					-	-
HOPE Therapeutics (N/A% risk adjusted)					-			242	16,500	16,742	41,715
Collaboration revenue					-					-	-
<b>Total Revenue</b>								<b>242</b>	<b>16,500</b>	<b>16,742</b>	<b>42,573</b>
<b>Operating Expenses</b>											
COGS								97	3,150	3,247	14,100
R&D	10,625	20,257	17,027	13,371	6,199	804	987	1,429	1,679	4,899	5,144
SG&A	11,436	74,944	27,308	14,216	13,505	2,943	2,743	2,808	3,308	11,802	16,732
Other	29,326	20,595	-	250	(1,202)	100		(68)		32	-
<b>Total Operating Expenses</b>	<b>51,387</b>	<b>115,796</b>	<b>44,335</b>	<b>27,837</b>	<b>18,502</b>	<b>3,847</b>	<b>3,730</b>	<b>4,266</b>	<b>8,137</b>	<b>19,980</b>	<b>35,976</b>
<b>Operating Income</b>	<b>(51,387)</b>	<b>(115,796)</b>	<b>(44,335)</b>	<b>(27,837)</b>	<b>(18,502)</b>	<b>(3,847)</b>	<b>(3,730)</b>	<b>(4,024)</b>	<b>8,363</b>	<b>(3,238)</b>	<b>6,597</b>
Interest expense	(56)	(18)	-	(120)	(230)	-	-	-	(163)	(163)	(489)
Convertible note default penalty	-	-	-	-	(849)	(2,870)			-	(2,870)	-
Loss of convertible note redemptions	-	-	-	-	(1,278)	(730)	(1,874)	(772)			
Change in fair value of convertible notes payable / warrant liabilities	(334)	22,751	(4,332)	(2,687)	(4,311)	1,931	(11,979)	(6,465)			
Interest income			(249)	494	44	4	2	2	22	30	25
Other						1,665		5,369			
<b>Income (Loss) Before Taxes</b>	<b>(51,777)</b>	<b>(138,529)</b>	<b>(39,754)</b>	<b>(30,150)</b>	<b>(25,126)</b>	<b>(5,512)</b>	<b>(17,581)</b>	<b>(5,890)</b>	<b>8,222</b>	<b>(6,241)</b>	<b>6,133</b>
Provision for income taxes											
<b>Net Income (Loss)</b>	<b>(51,777)</b>	<b>(138,529)</b>	<b>(39,754)</b>	<b>(30,150)</b>	<b>(25,126)</b>	<b>(5,512)</b>	<b>(17,581)</b>	<b>(5,890)</b>	<b>8,222</b>	<b>(6,241)</b>	<b>6,133</b>
<b>Basic EPS, GAAP</b>	<b>(15.11)</b>	<b>(29.53)</b>	<b>(6.04)</b>	<b>(3.98)</b>	<b>(2.36)</b>	<b>(0.34)</b>	<b>(0.98)</b>	<b>(0.26)</b>	<b>0.34</b>	<b>(0.31)</b>	<b>0.21</b>
<b>Diluted EPS, GAAP</b>	<b>(15.11)</b>	<b>(29.53)</b>	<b>(6.04)</b>	<b>(3.98)</b>	<b>(2.36)</b>	<b>(0.34)</b>	<b>(0.98)</b>	<b>(0.26)</b>	<b>0.25</b>	<b>(0.28)</b>	<b>0.19</b>
Weighted average shares outstanding, basic	3,427	4,692	6,577	7,576	10,644	16,410	17,934	22,231	24,115	20,173	29,565
Weighted average shares outstanding, diluted	3,427	4,692	6,577	7,576	10,644	16,410	17,934	22,231	33,349	22,481	32,392

Source: BTIG estimates.

## BTIG Covered Companies Mentioned in this Report

NRX Pharmaceuticals Inc (NRXP, Buy, \$25 PT; Closing Price: \$2.26)

## Appendix: Analyst Certification and Other Important Disclosures

### Analyst Certification

I, Thomas Shrader, hereby certify that the views about the companies and securities discussed in this report are accurately expressed and that I have not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this report.

I, Jinnie Kim, hereby certify that the views about the companies and securities discussed in this report are accurately expressed and that I have not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this report.

### Regulatory Disclosures

#### Ratings Definitions

BTIG LLC's ("BTIG") ratings, effective June 12, 2017, are defined as follows:

**BUY** – A security which is expected to produce a positive total return of 15% or greater over the 12 months following the recommendation. The BUY rating may be maintained as long as it is deemed appropriate, notwithstanding price fluctuations that would cause the target to fall outside of the 15% return.

**SELL** – A security which is expected to produce a negative total return of 15% or greater over the next 12 months following the recommendation. The SELL rating may be maintained as long as it is deemed appropriate, notwithstanding price fluctuations that would cause the target to fall outside of the 15% return.

**NEUTRAL** – A security which is not expected to appreciate or depreciate meaningfully over the next 12 months.

**NOT RATED** – A security which is not rated or covered by BTIG.

**UNDER REVIEW** – Effective immediately, coverage of the following securities is Under Review. Ratings, price targets, disclosures, and estimates for the companies listed below are suspended and should no longer be relied upon.

### Distribution of Ratings and Investment Banking Clients

BTIG must disclose in each research report the percentage of all securities rated by the member to which the member would assign a "buy", "neutral" or "sell" rating. The said ratings are updated on a quarterly basis. BTIG must also disclose the percentage of subject companies within each of these three categories for whom the member has provided investment banking services within the previous twelve months.

#### Current Rating Distribution (as of December 9, 2025):

Coverage Universe	Count	Percent	Inv. Banking Relationships	Count	Percent
Buy	315	63.4%	Buy	97	30.8%
Neutral	179	36.0%	Neutral	44	24.6%
Sell	3	0.6%	Sell	0	0.0%

For purposes of FINRA ratings distribution rules, BTIG's stock ratings of Buy, Neutral and Sell fall into Buy, Hold and Sell categories, respectively.

### Company Valuation and Risk Disclosures

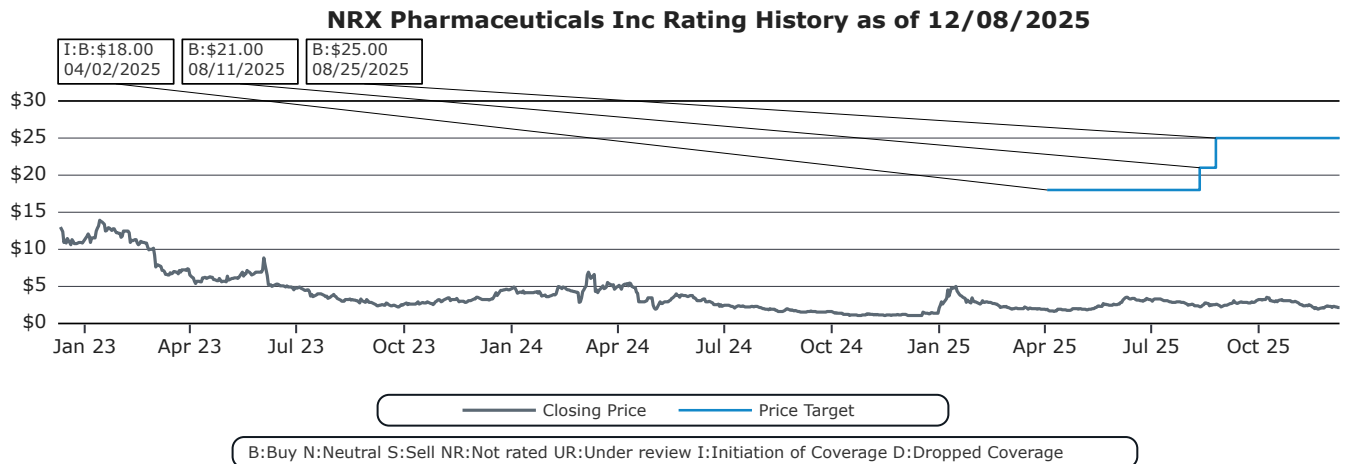
#### NRX Pharmaceuticals Inc (NRXP, Buy, \$25 PT)

##### Valuation:

- We value NRXP using a DCF (20.0% discount rate and a 1.5% TG rate).

##### Risks:

- NRx is an established biotech company. It faces all the standard upside and downside risks for that industry, including unexpected outcomes or safety signals from clinical readouts, regulatory uncertainty, and increasingly complex and price-sensitive commercial markets for its product candidates.



BTIG is acting as financial advisor to HOPE Therapeutics, Inc., a wholly owned subsidiary of NRx Pharmaceuticals, Inc. (“NRx” and, collectively with HOPE, the “Company”), announced on February 3, 2025. The scope of the engagement includes advisory and assistance in evaluating strategic and financing options available to the Company and identification, evaluation, and negotiation of potential acquisition targets for the HOPE network of clinics, as well as equity and debt financing structures.

## Company–Specific Regulatory Disclosures

BTIG LLC has received compensation for investment banking services in the past 12 months from: NRX Pharmaceuticals Inc (NRXP)

BTIG LLC expects to receive or intends to seek compensation for investment banking services in the next 3 months from: NRX Pharmaceuticals Inc (NRXP)

BTIG LLC had an investment banking services client relationship during the past 12 months with: NRX Pharmaceuticals Inc (NRXP)

***BTIG is acting as financial advisor to HOPE Therapeutics, Inc., a wholly owned subsidiary of NRx Pharmaceuticals, Inc. (“NRx” and, collectively with HOPE, the “Company”), announced on February 3, 2025. The scope of the engagement includes advisory and assistance in evaluating strategic and financing options available to the Company and identification, evaluation, and negotiation of potential acquisition targets for the HOPE network of clinics, as well as equity and debt financing structures.***

## Other Disclosures

Additional Information Available Upon Request

## General Disclosures

Research reports produced by BTIG LLC (“BTIG”) are published for and intended to be distributed solely to BTIG institutional and corporate clients. Recipients of BTIG reports will not be considered clients of BTIG solely because they may have received such BTIG report.

To the extent recipient accesses BTIG research, whether on a BTIG research website or through a third-party platform, BTIG is able to search, filter, download and review information on the readership of BTIG’s research, including the specific research consumed and the name, company name, email address and, in certain circumstances, the location of the individual who accessed the research (the “Readership Information”). Recipient consents to BTIG’s receipt of the Readership Information, including receipt of that information from a third party.

Without BTIG’s prior written consent, recipients of BTIG research reports and any other BTIG material whether accessed from a BTIG research website, by email or other electronic means, or through a third-party platform are not permitted to use, in whole or in part, BTIG research reports or any other BTIG material, in connection with or to enable development of machine learning, or

other similar technologies, or to train third-party or proprietary artificial intelligence technologies, models, software, platforms, tools or similar technologies, or as a prompt or input to any such technologies.

The research analyst(s) responsible for the preparation of this report receives compensation based upon a variety of factors, including the quality and accuracy of research, internal/client feedback, and overall Firm revenues.

Artificial intelligence tools may have been used in the preparation of this material, including assisting in fact-finding, data analysis, pattern recognition, and content drafting.

BTIG reports are based on public information and BTIG considers the same to be reliable, comprehensive information, but makes no representation or warranty that the reports are accurate or complete. BTIG opinions and information provided in this report are as of the date of the report and may change without notice. An issuer may be classified as “Under Review” or “Research Restricted”. In these cases, investors should consider any previous investment recommendation and/or rating to a subject company/issuer to no longer be current and should not be relied upon nor considered a solicitation.

This research report is not an offer to buy or sell or solicitation of an offer to buy or sell any security in any jurisdiction where such an offer or solicitation would be illegal. This research report was not drafted specifically for any particular individual or entity and is not a personal recommendation to participate in any particular trading strategy or transaction. Any recipient of this research report should obtain independent advice specific to their personal circumstances before undertaking any investment activity and must make their own independent evaluation of any securities or financial instruments.

Facts, views or opinions presented in this report have not been reviewed by, and may not reflect information known to, employees or other professionals in the “BTIG Group” (BTIG Group includes, but is not limited to, BTIG and its parents, subsidiaries and/or affiliates). BTIG Group employees, including Sales Representatives and Traders, may provide oral or written commentary or advice that may be inconsistent with the opinions and/or views expressed in this research report. BTIG Group employees and/or its affiliates not involved in the preparation of this research report may have investments in securities or derivatives of securities of companies mentioned in this report that are inconsistent with the views discussed in this report.

Private Company Disclosure: No recommendations, ratings, estimates.

Regarding private companies discussed within this report, BTIG LLC does not assign a rating system. Unlike public companies that are under BTIG LLC research coverage, there are no recommendations, ratings, or estimates available for any of the private companies referenced herein. While the information derived from and contained in this report have been obtained from sources believed to be reliable, it is important to recognize that private companies are not typically subject to the same reporting obligations as publicly traded companies. This can result in less publicly available information, potentially less transparency, and fewer sources of information regarding the private enterprises discussed in these materials. The information contained in this document may differ from information a private company may subsequently make public or otherwise share with investors. BTIG assumes no responsibility for any such discrepancies. The reader should not assume that any discussion of private companies discussed in these materials is to be regarded as an express or implied acknowledgement or accedence to any research expectation of any private company if it goes public.

For a complete list of BTIG Disclosures including public company-specific disclosures and explanation of BTIG LLC’s research Ratings Definitions for public companies, please visit <https://research.btig.com/disclosures>.

Investors in securities products bear certain risks in conjunction with those investments. The value of, and income from, any investments may vary because of changes in interest rates or foreign exchange rates, securities prices or market indexes, operational or financial conditions of companies or other factors within or beyond the companies’ control. Recipient of the research reports should be aware that investments in securities may pose significant risks due to the inherent uncertainty associated with relying on forecasts of various factors that can affect the earnings, cash flow and overall valuation of a company. Any investment in securities should be undertaken only upon consideration of issues relating to the recipient’s overall investment portfolio and objectives (such as diversification by asset class, industry or company) as well as time horizon and liquidity needs. Further, past performance should not be taken as an indication or guarantee of future performance, and no representation or warranty, express or implied, is made regarding future performance. There may be time limitations on the exercise of options or other rights in any securities transactions.

Investing in foreign markets and securities, including ADRs, is subject to additional risks such as currency fluctuation, limited information, political instability, economic risk, and the potential for illiquid markets. Investing in emerging markets may accentuate these risks. Non-U.S. reporting issuers of foreign securities, however, may not make regular or complete public disclosure relating to their financial condition or the securities that they issue.

The trademarks and service marks contained herein are the property of their respective owners. Third-party data providers make no warranties or representations of any kind relating to the accuracy, completeness, or timeliness of the data they provide and shall not have liability of any damages of any kind relating to such data. The report or any portion hereof may not be reprinted, sold or redistributed without the written consent of BTIG. This report is intended only for use by the recipient. The recipient acknowledges that all research and analysis in this report are the property of BTIG and agrees to limit the use of all publications received from BTIG within his, or her or its, own company or organization. No rights are given for passing on, transmitting, re transmitting or reselling the information provided.

### **Jurisdiction and Dissemination**

BTIG is a U.S. broker-dealer and member of FINRA and SIPC.

BTIG Australia Limited ACN 128 554 601, member of ASIC and ASX; BTIG Hong Kong Limited, an Exchange Participant of SEHK and licensed and regulated by the SFC; BTIG Ltd, member of the LSE, authorized and regulated by the FSA; and BTIG Singapore Pte Ltd, registered and licensed with MAS; are all separate but affiliated entities of BTIG. Unless governing law permits otherwise, you must contact a BTIG entity in your home jurisdiction for further information, or if you want to use our services in effecting a transaction.

Issued and approved for distribution in the UK and EEA by BTIG Ltd. to eligible counterparties and professional clients only. Issued and distributed in Australia to “wholesale clients” only by BTIG Australia Limited. In Singapore and Hong Kong, further information may be obtained from BTIG Singapore Pte Ltd and BTIG Hong Kong Limited, respectively.