Zacks Small-Cap Research
Sponsored – Impartial - Comprehensive

October 3, 2018
David Bautz, PhD
312-265-9471
dbautz@zacks.com

scr.zacks.com
10 S. Riverside Plaza, Chicago, IL 60606

Midatech Pharma Plc

(MTP-NASDAQ)

MTP: Converting to R&D Focused Company Through Divestiture of U.S. Commercial Arm…

Based on our probability adjusted DCF model that takes into account potential future revenues from GNP, Q-Sphera, and NI platform products along with revenues from Midatech Pharma US, MTP is valued at $5.50 per share. This model is highly dependent upon continued clinical and commercial success and will be adjusted accordingly based upon future clinical results and the company's execution.

Current Price (10/03/18)	$0.62
Valuation	**$5.50**

OUTLOOK

On September 27, 2018, Midatech Pharma Plc (MTP) announced the proposed sale of Midatech Pharma US Inc. to Kanwa Holdings, LP for an upfront payment of $13 million with up to an additional $6 million payable upon the attainment of certain net sales thresholds in 2018 and 2019. Upon closing of the deal, Midatech will have sufficient cash to fund operations through the first quarter of 2019.

The move transforms Midatech to a pure-play R&D company focused on the development of the company's three platform technologies. All three technologies have yielded products that are now in clinical testing, with the company recently having reported positive results from the proof-of-concept study of MTD201, a sustained release product of octreotide.

SUMMARY DATA

52-Week High	**$1.55**
52-Week Low	**$0.50**
One-Year Return (%)	**-60.13**
Beta	**1.35**
Average Daily Volume (sh)	**27,702**
Shares Outstanding (mil)	**31**
Market Capitalization ($mil)	**$19**
Short Interest Ratio (days)	**N/A**
Institutional Ownership (%)	**81**
Insider Ownership (%)	**5**
Annual Cash Dividend	**$0.00**
Dividend Yield (%)	**0.00**
5-Yr. Historical Growth Rates	
Sales (%)	**N/A**
Earnings Per Share (%)	**N/A**
Dividend (%)	**N/A**
P/E using TTM EPS	**N/A**
P/E using 2018 Estimate	**-3.2**
P/E using 2019 Estimate	**-3.2**

Risk Level	**High**
Type of Stock	**Small-Value**
Industry	**Med-Drugs**

ZACKS ESTIMATES

Revenue
(In millions of £)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2017	0.2 A	0.2 A	0.2 A	0.2 A	0.8 A
2018	0.2 A	0.3 A	0.2 E	0.2 E	0.9 E
2019					0.5 E
2020					0.5 E

Earnings per share
(In £)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2017	-0.12 A	-0.12 A	-0.09 A	-0.10 A	-0.43 A
2018	-0.04 A	-0.05 A	-0.05 E	-0.06 E	-0.20 E
2019					-0.20 E
2020					-0.20 E

© Copyright 2018, Zacks Investment Research. All Rights Reserved.

WHAT'S NEW

Business Update

Midatech Pharma Plc (MTP) is a biotechnology company with three novel drug delivery technologies that all improve bio-distribution and bio-delivery of drugs. The technologies achieve this via either the targeted delivery, sustained release, or solubilized local delivery of existing therapeutic drugs.

The Q-Sphera™ next-generation sustained release (SR) technology platform, with numerous and distinct advantages over traditional polymer microsphere production, utilizes precisely and consistently manufactured monodispersed micro particles such that active drug compounds are released into the body in a tightly controlled and predictable manner over an extended period of time (e.g., weeks to months).

The MidaCore™ technology platform is based on gold nanoparticle (GNP) drug conjugates, which at 2 nm are among the smallest particles in biomedical use. They are composed of a core of gold atoms surrounded by a layer of carbohydrates and linkers for attachment of small molecules (e.g., chemotherapeutics, peptides, etc.) and targeting agents. The small size and multi-valency arrangement around the gold core underpin the ability to improve biodistribution and thus safety and efficacy of existing drugs.

The MidaSolve nanosaccharide inclusion (NI) technology is utilized for potent small molecule chemotherapeutics that have minimal solubility at biological pH, which limits them to oral administration. When reformulated with the MidaSolve technology, the complexed molecules solubilize such that parenteral routes of administration can be employed. This enables local administration directly into the tumor.

Proposed Sale of Midatech Pharma US Inc.

On September 27, 2018, Midatech announced the proposed sale of Midatech Pharma US Inc., which runs the company's U.S. commercial operations, for an upfront payment of $13 million and the potential for up to $6 million in additional consideration based on net sales of certain Midatech US products in 2018 and 2019. Upon completion of the sale, Midatech is required to repay the outstanding balance of the loan from MidCap Financial of $7.0 million plus prepayment costs and other fees, thus leaving approximately $4.5 million in proceeds. The divestiture of the company's U.S. commercial operations is being undertaken to allow all resources to be utilized for the advancement of the company's lead development products, which are shown in the figure below. The transaction is contingent upon shareholder approval and we anticipate it closing in the fourth quarter of 2018.

Program	Indication	Target Product Profile & USP	Addressable Market	Pre	Ph I	Ph II	Ph III / pivotal	MAA/NDA submission
Q-SPHERA TECHNOLOGY PLATFORM								
MTD201	Carcinoid cancer, and acromegaly	Comparable to SLAR; + no burst, recons, injection; wastage; COGS	~ $2bn (50,000 pts)					2020 (NDA)
MIDASOLVE TECHNOLOGY PLATFORM								
MTX110	Brain cancer children (DIPG)	Delivered directly into tumours; large therapeutic window	~ $100m (1,000 pts)					2020/21 (MAA/NDA)
MIDACORE TECHNOLOGY PLATFORM								
MTX102	Type 1 autoimmune diabetes vaccine	GNP immuno- tolerising for pancreas protection	~ $25bn? (8.5% of ad. popn)					2021/2
MTD119	Liver cancer, 'all comer' cancers	Enhanced bio-distribution and on-target delivery	~ $1bn (800,000 pts)					2022
MTR111 MTR116	Brain cancer vaccines	GNP immuno-stimulatory for child & adult cancers	~ $bn's? (200,000 pts)					2022
MTX114	Psoriasis Immunotherapy	First topical methotrexate treatment for psoriasis	100,000,000 patients					2021/2

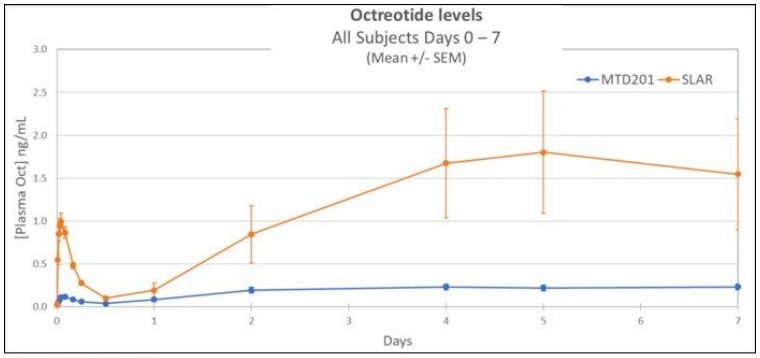
Source: Midatech Pharma Plc

Positive Interim Data for MTD201

On August 31, 2018, Midatech announced positive interim results from a proof-of-concept study for the company's lead development product MTD201 (Q-octreotide), a sustained release product of octreotide that utilizes the company's Q-Sphera™ sustained release technology.

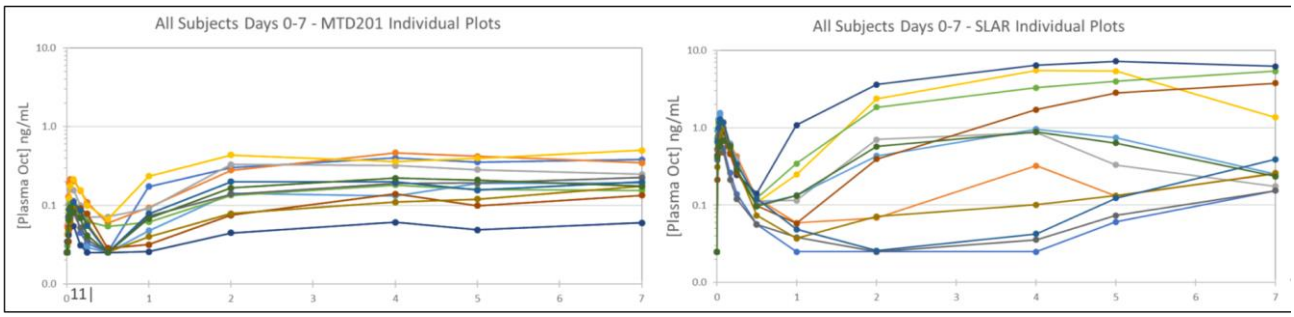
This first in-human, double blind, randomized, parallel group study enrolled 24 healthy volunteers and was designed to compare the sustained release profile between MTD201 and Sandostatin® LAR® (SLAR) both pharmacokinetically (PK data on octreotide levels in the blood) and pharmacodynamically (PD data on growth hormone biomarker levels).

Results showed that MTD201 produces a favorable clinical profile and potentially better product compared to Novartis' SLAR. The following figure shows average plasma octreotide levels for the subjects administered SLAR and MTD201. Interestingly, MTD201 has a smooth uptake and trajectory with almost no initial "burst" phase or dose dumping, while SLAR has poorly controlled bimodal release kinetics characterized by two peaks over the first 7 days before the product settle down, as shown in the following figure.



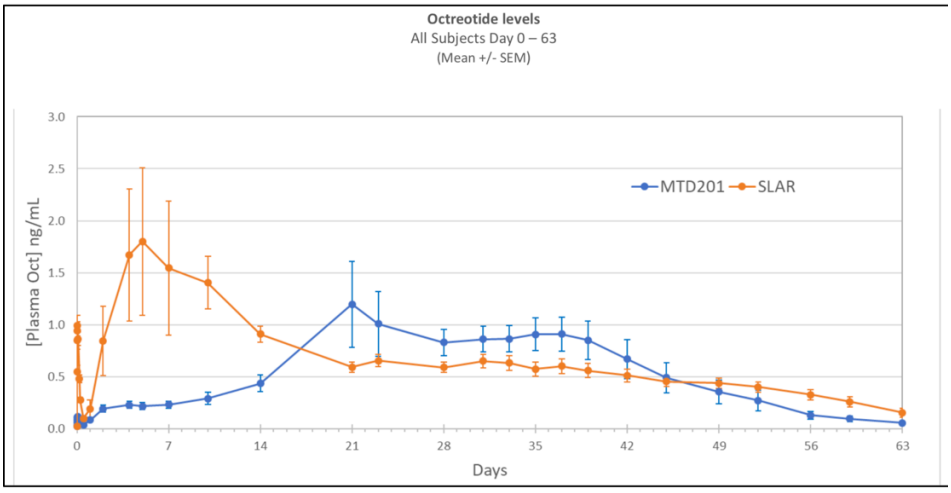
Source: Midatech Pharma Plc

The large error bars evident for the SLAR data shows the high variability of plasma octreotide release, which is in stark contrast to the very small error bars for the MTD201 data. This is exemplified in the following graphs that shows plasma octreotide levels for each subject. Following the initial burst phase, plasma octreotide levels in those administered SLAR vary by up to 100-fold. The graphs for each subject administered MTD201 are consistent, tightly grouped, and linear, which is in stark contrast to the unpredictable and variable graphs for those administered SLAR.



Source: Midatech Pharma Plc

The following figure shows the average level of plasma octreotide over 63 days for those administered MTD201 and SLAR. The plasma level of octreotide for those administered MTD201 steadily rises, settles at a plateau for the duration of the treatment period, then slowly tapers off, while the plasma level of octreotide peaks at approximately day 1, again at day 5, and then tapers off for those administered SLAR.



Source: Midatech Pharma Plc

These differences in plasma octreotide level between those administered MTD201 and SLAR translates into differences in the clinical outcome of growth hormone reduction, the pathology afflicting acromegaly patients. As part of the trial, healthy volunteers were given growth hormone releasing hormone (GRHR) and the % reduction in growth hormone (GH) level was recorded following administration of MTD201 or SLAR. The following table shows that MTD201 resulted in at least comparable normalization of GH levels and perhaps even a greater reduction as judged by the area under the curve (AUC) and Cmax.

Surrogate Efficacy Marker = Inhibition of GH release after GHRH Challenge

GH Endpoint at DAY 28	Treatment	Mean % Reduction from Baseline
Overall GH Response (Reduction) (AUC, h.ng/mL)	MTD201	28.6%
	Sandostatin LAR	26.4%
Peak GH Response (Reduction) (Cmax, ng/mL)	MTD201	30.4%
	Sandostatin LAR	17.8%

GHRH - growth hormone releasing hormone
GH - growth hormone
AUC - the area under the response curve
Cmax - the peak rise in growth hormone

Source: Midatech Pharma Plc

Additional features in which MTD201 may be superior to SLAR include:

1) A faster reconstitution time (10 min for MTD201 vs. 40 min for SLAR);
2) Additional time to use the product (up to two hours post reconstitution for MTD201 vs. needing to use immediately post reconstitution for SLAR);
3) The ability to use a smaller gauge needle (21G needle used to administer MTD201 vs. 19G needle used to administer SLAR, although sometimes an 18G needle must be used due to blockages of 19G needles)

The last point above was exemplified by the fact that compared to SLAR, those administered MTD201 had much lower rates of pain at injection site (8% vs. 25%) and injection site tenderness (8% vs. 83%).

The company will be meeting with the FDA to get feedback on the next clinical trial, and based upon this information the company will decide whether to go for an equivalence label or a differentiated label. The decision about which label to target will be dictated by the quickest route to approval and we continue to believe an NDA will be filed in 2020.

Q-Sphera™ Overview

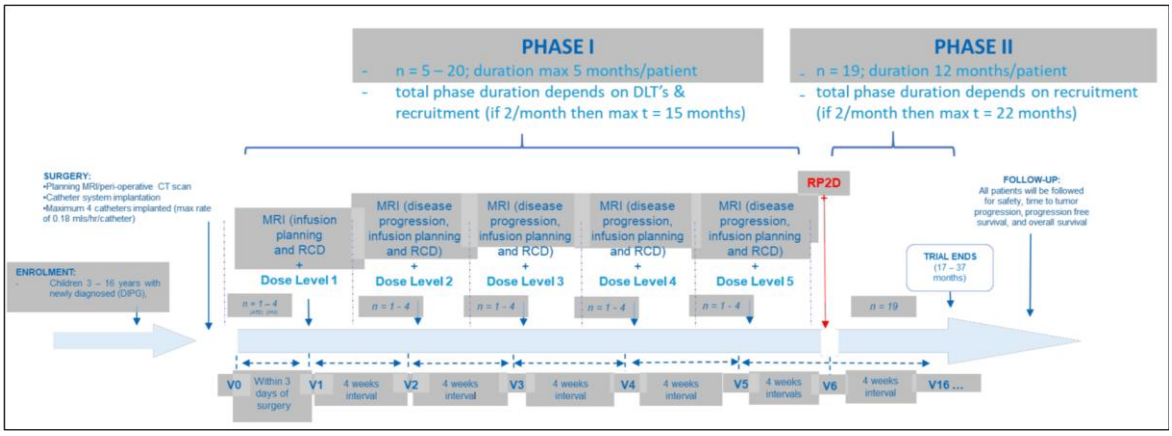
The Q-Sphera™ platform was designed to address several problems associated with microencapsulation and polymer-depot based drug delivery. The high energy reactor-based emulsion processes such as those used to manufacture SLAR require a large infrastructure and are more wasteful in that they produce large quantities of unusable particles (i.e., either too large or too small). In addition, these emulsion processes use large volumes of unfavorable organic solvents (such as ethyl acetate and dichloromethane). Particles produced from these solvent solutions must be rigorously evaporated and washed to remove residual traces of solvent. The 'printer' approach MTP takes is unique in that it 'prints' the microspheres at several million spheres per second, uses non-toxic solvents easily removed via extraction, and is completed in a small infrastructure. The key advantage that the Q-Sphera™ approach offers is product monodispersity and homogeneity. Very tight particle size distributions can be produced, which increases the usable product yield and leads to an improved clinical profile and injectability characteristics compared to traditional manufacturing methods. For example, the Q-Sphera™ platform results in products with the lack of a burst phase, lower variability, and reduced injection site pain (as seen in the results from the MTD201 proof-of-concept study) through the use of smaller gauge needles allowed by the homogeneous

particle sizes. The end result of the Q-Sphera™ process is a formulation that produces consistent and reproducible drug concentrations in the body within very narrow limits.

MTX110 Study Underway

On May 25, 2018, Midatech announced that dosing has commenced in the study of MTX110 for the treatment of diffuse intrinsic pontine glioma (DIPG), a highly infiltrative brainstem high grade glioma that occurs mostly in children. The tumors are aggressively infiltrative such that cancer tissue typically cannot be differentiated from normal brain tissue. The overall median survival of children with DIPG is approximately 9 months and remains unchanged despite decades of clinical trial research.

The trial is a combined Phase 1 and 2 study that will enroll up to approximately 40 patients. The Phase 1 safety portion of the study is progressing on schedule and could potentially complete in early 2019.



Source: Midatech Pharma Plc

The active component of MTX110 is the poorly soluble hydroxamic acid drug panobinostat, a histone deacetylase inhibitor (HDACi), which until recently could not be formulated for parenteral administration. Midatech's MidaSolve technology enabled the aqueous solubility of this class of small molecule cancer therapeutic, which expands parenteral delivery options that in turn are expected to improve the safety and efficacy of the treatment.

Panobinostat does not cross the blood-brain barrier effectively when given orally, thus necessitating an alternate means of delivery. Direct delivery of MTX110, the soluble form of panobinostat, bypasses the blood brain barrier and ensures adequate drug exposure to tumor cells. This occurs through convection-enhanced delivery (CED), a method used to deliver drugs into the brain through a pressure gradient in order to saturate the extracellular fluid compartment (Bobo *et al*., 1994). In contrast to diffusion, which depends entirely upon a concentration gradient to distribute the molecules, the use of hydraulic pressure in CED allows for homogenous distribution over large distances by displacing the interstitial fluid.

To date, MTX110 has been used on a compassionate use basis to treat five DIPG patients, where the drug was well tolerated. Treating DIPG represents a potential $50-$100 million worldwide opportunity based on the available patient population and potential for orphan drug pricing.

Financial Update

On September 27, 2018, Midatech announced financial results for the first six months of 2018. Total revenue from continuing operations for the first six months of 2018 was £0.55 million, compared to £0.47 million for the corresponding time period in 2017. Research and development costs were £4.6 million for the first half of 2018, compared to £4.2 million for the first half of 2017. The increase was primarily due to clinical trial costs for MTD201 and MTX110 that were not incurred during 2017. Administration costs for the first half of 2018 were £2.1 million, compared to £2.7 million for the first half of 2017.

Total cash burn for the first half of 2018 was £8.4 million and the company exited the first half of 2018 with approximately £4.4 million in cash and cash equivalents. We believe the company's current cash position, along with the net proceeds from the sale of Midatech U.S., will be enough to fund operations through the first quarter of 2019.

Valuation

Midatech's three proprietary drug delivery technologies (Q-Sphera™ for sustained release of already marketed products, MidaCore™ gold nanoparticles (GNP) for targeted delivery, and MidaSolve nanosaccharide inclusion (NI) for local delivery) help differentiate it from other biotechnology companies and the potential quick path to market for MTD201 and MTX110 could deliver significant revenues beginning in just a few years. We view the sale of the commercial group in the U.S. as a smart move by management such that resources can be fully focused on advancing the pipeline candidates forward to market as quickly as possible.

The interim results from the proof-of-concept study of MTD201 are really encouraging and the potential for the product to be an improvement over SLAR is unexpected and increases the potential for the Q-Sphera™ platform. Our valuation currently stands at $5.50 per share, and with the stock currently trading at a substantial discount to our current valuation we believe investors would be well served to take a closer look at the company before this valuation gap closes as more investors become familiar with the story.

PROJECTED FINANCIALS

Midatech Plc
Income Statement

Midatech Pharma Plc (in millions of £)	2017 A	1H A	2H E	2018 E	2019 E	2020 E
MTX110 - DIPG Glioma	£0.0	£0.0	£0.0	£0.0	£0.0	£0.0
MTD201 - Acromegaly	£0.0	£0.0	£0.0	£0.0	£0.0	£0.0
MTD119 - Liver cancer	£0.0	£0.0	£0.0	£0.0	£0.0	£0.0
MTR103 - Glioblastoma	£0.0	£0.0	£0.0	£0.0	£0.0	£0.0
Grants & Collaborative Revenue	£0.8	£0.5	£0.4	£0.9	£0.5	£0.5
Total Revenues	**£0.8**	**£0.5**	**£0.4**	**£0.9**	**£0.5**	**£0.5**
Research & Development	£10.2	£4.6	£6.0	£10.6	£13.0	£14.0
Distribution Costs, Sales and Marketing	£9.4	£0.1	£0.1	£0.2	£0.1	£0.1
Administrative Costs	£3.1	£2.1	£2.1	£4.2	£4.2	£4.4
Impariment of Intangible Assets	£1.5	£0.0	£0.0	£0.0	£0.0	£0.0
Other Expenses	£0.0	£0.0	£0.0	£0.0	£0.0	£0.0
Operating Income	-£23.41	-£6.3	-£7.8	-£14.1	-£16.8	-£18.0
Non-Operating Expenses (Net)	£0.25	-£0.2	-£0.1	-£0.34	-£0.1	-£0.1
Pre-Tax Income	-£23.2	-£6.5	-£7.9	-£14.4	-£16.9	-£18.1
Income Taxes Paid	-£1.3	-£0.9	-£0.6	-£1.5	-£1.0	-£1.0
Net Income	**-£21.9**	**-£5.6**	**-£7.3**	**-£12.9**	**-£15.9**	**-£17.1**
Net Margin	-	-	-	-	-	-
Exchange Gain/Losses	-£1.2	£0.0	£0.0	£0.0	£0.00	£0.00
Total Comprehensive Gain/Loss	**-£23.1**	**-£5.6**	**-£7.3**	**-£12.9**	**-£15.9**	**-£17.1**
Net Loss per Share	**-£0.43**	**-£0.09**	**-£0.11**	**-£0.20**	**-£0.20**	**-£0.20**
YOY Growth	-	-	-	-	-	-
Basic Shares Outstanding	51.3	61.1	65.0	63.0	80.0	85.0

Source: Zacks Investment Research, Inc. *David Bautz, PhD*

© Copyright 2018, Zacks Investment Research. All Rights Reserved.

HISTORICAL STOCK PRICE



© Copyright 2018, Zacks Investment Research. All Rights Reserved.

DISCLOSURES

The following disclosures relate to relationships between Zacks Small-Cap Research ("Zacks SCR"), a division of Zacks Investment Research ("ZIR"), and the issuers covered by the Zacks SCR Analysts in the Small-Cap Universe.

ANALYST DISCLOSURES

I, David Bautz, PhD, hereby certify that the view expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the recommendations or views expressed in this research report. I believe the information used for the creation of this report has been obtained from sources I considered to be reliable, but I can neither guarantee nor represent the completeness or accuracy of the information herewith. Such information and the opinions expressed are subject to change without notice.

INVESTMENT BANKING AND FEES FOR SERVICES

Zacks SCR does not provide investment banking services nor has it received compensation for investment banking services from the issuers of the securities covered in this report or article.
Zacks SCR has received compensation from the issuer directly or from an investor relations consulting firm engaged by the issuer for providing non-investment banking services to this issuer and expects to receive additional compensation for such non-investment banking services provided to this issuer. The non-investment banking services provided to the issuer includes the preparation of this report, investor relations services, investment software, financial database analysis, organization of non-deal road shows, and attendance fees for conferences sponsored or co-sponsored by Zacks SCR. The fees for these services vary on a per-client basis and are subject to the number and types of services contracted. Fees typically range between ten thousand and fifty thousand dollars per annum. Details of fees paid by this issuer are available upon request.

POLICY DISCLOSURES

This report provides an objective valuation of the issuer today and expected valuations of the issuer at various future dates based on applying standard investment valuation methodologies to the revenue and EPS forecasts made by the SCR Analyst of the issuer's business.
SCR Analysts are restricted from holding or trading securities in the issuers that they cover. ZIR and Zacks SCR do not make a market in any security followed by SCR nor do they act as dealers in these securities. Each Zacks SCR Analyst has full discretion over the valuation of the issuer included in this report based on his or her own due diligence. SCR Analysts are paid based on the number of companies they cover. SCR Analyst compensation is not, was not, nor will be, directly or indirectly, related to the specific valuations or views expressed in any report or article.

ADDITIONAL INFORMATION

Additional information is available upon request. Zacks SCR reports and articles are based on data obtained from sources that it believes to be reliable, but are not guaranteed to be accurate nor do they purport to be complete. Because of individual financial or investment objectives and/or financial circumstances, this report or article should not be construed as advice designed to meet the particular investment needs of any investor. Investing involves risk. Any opinions expressed by Zacks SCR Analysts are subject to change without notice. Reports or articles or tweets are not to be construed as an offer or solicitation of an offer to buy or sell the securities herein mentioned.