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Cancer Genetics (Nasdaq/CGIX)

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Neutral Lowering to Neutral on Strategic Review
Cancer Genetics is an emerging leader in DNA-based cancer diagnostics

Investment Highlights

1) Cancer Genetics announced its financial results for Q4/17 earlier this month, including revenues of \$7.5 million, an increase of 4% year-over-year, and a net loss of \$7.9 million or (\$0.35) per share, which included \$5.3 million in one-time charges for bad debt expense. Revenue growth was led by an increase of \$1.8 million in the Discovery Services segment, which included a full quarter of last year's vivoPharm acquisition for the first time, offset by a \$500,000 decrease in Biopharma Service revenues and a \$1.1 million drop in Clinical Service sales. During the quarter, the Company re-evaluated its contractual allowances, accounting for the additional bad debt expense, and revenues were also negatively impacted in Q4 by lower revenues per test (\$363 in 2017 on average versus \$421 in 2016) as well as fluctuations in the timing of clinical study projects. For the year as a whole, revenues increased 8% to \$29.1 million, with a net loss of \$20.8 million or (\$1.01) per share, which included \$5.3 million in one-time expenses. Cancer Genetics used approximately \$13.6 million in operating funds in 2017, although only \$8 million was for core operations, and at the end of last year the Company held \$9.5 million in cash on hand, plus another \$13 million capacity remaining in an at-the-market equity facility with Aspire Capital.

2) Although the Company did not provide detailed financial guidance for 2018, perhaps due to the recent re-evaluation of receivables or to a recently-announced strategic alternatives review, we are going to assume Cancer Genetics will keep its growth focus on its Biopharma and Discovery Services segments this year. Our forecasts for CGIX for 2018E are revenues of \$31 million, representing a 6.5% increase year-over-year, driven by growth in the Discovery area, with a net loss of \$12 million or (\$0.43) per share, including gross margins of 40.0%, an improvement from 37.9% in 2017, and operating expenses of \$24.0 million, a decrease from \$29.7 million last year. Precision Oncology continues to be a bright spot for the Company, with leading-edge products such as Complete::IO,

Current Price \$1.20
Price Target N/A

Estimates	F2015A	F2016A	F2017A
Revenues(\$000s)	\$18,040	\$27,049	\$29,121
1Q March	4,370	6,068	6,966 A
2Q June	4,185	7,001	6,604 A
3Q September	4,001	6,750	8,028 A
4Q December	5,484	7,230	7,523 A
EPS (diluted)	(\$1.96)	(\$1.00)	(\$1.01)
1Q March	(0.44)	(0.39)	(0.51) A
2Q June	(0.51)	(0.28)	(0.16) A
3Q September	(0.54)	(0.23)	(0.03) A
4Q December	(0.47)	(0.15)	(0.35) A

EBITDA/Share	(\$1.63)	(\$0.80)	(\$0.70)
EV/EBITDA (x)	N/A	N/A	N/A
Stock Data			
52-Week Range	\$0.90-\$4.78		
Shares Outstanding (mil.)	27.8		
Market Capitalization (mil.)	\$33.3		
Enterprise Value (mil.)	\$23.4		
Debt to Capital (12/17)	27.5%		
Book Value/Share (12/17)	\$0.96		
Price/Book	1.2 x		
Average Trading Volume (3-month)	144,700		
Insider Ownership	15.1%		
Institutional Ownership	18.1%		
Short interest (Millions)	1.3		
Dividend / Yield	\$0.00/0.0%		



Price target and ratings changes over the past 3 yrs:
 Initiated - June 27, 2017 - Buy - Price Target \$11.00
 Updated - April 6, 2018 - Rating lowered to Neutral

Tissue of Origin TOO, Oncomine Dx Target Test (with Thermo Fisher (TMO, Not Rated)), and Liquid::Lung-cfDNA, and this year the goal will be to sign new partnerships and large volume contracts to benefit both Biopharma and Discovery divisions.

Conclusion/Stock Valuation

Due to an ongoing strategic operations review, which may result in significant changes at the Company, we are reducing our rating on Cancer Genetics to Neutral until this process can be completed and the future composition and direction of the Company can be more easily ascertained.

Risk Factors

In addition to normal economic and market risk factors that impact most equities and the common risks shared by Cancer Genetics with other companies in the industry, we believe an investment in CGIX involves the following risks:

- **Reliance on key management** – At present, CGIX relies on several key members of its management team who either founded the Company or have been in key executive positions for an extended period of time. Should one or more of these key executives leave the Company, CGIX could find it difficult to replace their long-standing knowledge of operations and industry expertise.
- **Reliance on partnerships** – To date, CGIX has signed a number of development partnerships and joint ventures for its diagnostic tests and information services. Thus, in the future certain factors related to product marketing and/or new product development may be determined by third parties and out of the control of Company management.
- **Limited stock liquidity** – Trading volume in CGIX stock is comparatively light and these shares have a relatively limited history of trading compared with other healthcare stocks. As such, news regarding CGIX, its target market, partners and/or competitors could lead to significant volatility in the stock price.
- **Competitive markets** – The Company and its partners compete in its target diagnostic markets with a number of companies, many of which are considerably larger than the Company. There can be no assurance that the Company and its partners will be able to successfully compete and launch new products into these competitive markets in the future.
- **FDA and regulatory risks** – CGIX and its partners are subject to regulatory review for ongoing diagnostic tests and information products, principally the US Food and Drug Administration's approval and laboratory review processes. In addition, the quality assurance and manufacture of the Company's diagnostic products are subject to ongoing oversight and regulation, and any negative correspondence from the FDA or other regulatory agencies could have an adverse effect on the ongoing operations of the Company.
- **Lack of historic profitability** - CGIX has not achieved operating profitability since its founding, and according to our forecasts may not be expected to do so in the near future. Although the Company maintains adequate cash reserves at the present time, there can be no assurance the Company will not need to raise additional working capital in the future should operating losses continue.
- **Need to defend patents and other intellectual property** – CGIX currently holds approximately 49 US and 175 International patents on its products and information services, some of which expire in the near future. The Company may be required to defend its patents in the US and overseas in the future, and there can be no assurance these defenses will be successful.

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Cancer Genetics, Inc.
Consolidated Statements of Income
 (In 000s, except per share data)

FYE December	2014	2015	1Q16 March	2Q16 June	3Q16 September	4Q16 December	2016	1Q17 March	2Q17 June	3Q17 September	4Q17 December	2017	2018E
Revenue	\$10,199	\$18,040	\$6,068	\$7,001	\$6,750	\$7,230	\$27,049	\$6,966	\$6,604	\$8,028	\$7,523	\$29,121	\$31,000
Cost of revenues	8,453	14,098	4,103	4,285	4,444	4,272	17,104	4,209	4,034	4,588	5,239	18,070	18,600
Gross profit	1,746	3,942	1,965	2,716	2,306	2,958	9,945	2,757	2,570	3,440	2,284	11,051	12,400
Operating Expenses													
Research and development	4,622	5,483	1,532	1,680	1,594	1,161	5,967	1,110	989	981	1,709	4,789	4,000
General and administrative	12,369	14,567	4,318	3,658	3,701	4,357	16,034	3,477	3,529	4,346	8,542	19,894	15,500
Sales and marketing	3,964	5,269	1,298	1,379	1,054	937	4,668	971	1,165	1,301	1,553	4,990	4,500
Total operating expenses	20,955	25,319	7,148	6,717	6,349	6,455	26,669	5,558	5,683	6,628	11,804	29,673	24,000
Income (loss) from operations	(19,209)	(21,377)	(5,183)	(4,001)	(4,043)	(3,497)	(16,724)	(2,801)	(3,113)	(3,188)	(9,520)	(18,622)	(11,600)
Other income (expense)													
Interest expense	(473)	(344)	(126)	(107)	(111)	(110)	(454)	(194)	(253)	(350)	(1,331)	(2,128)	(600)
Interest income	74	49	4	13	4	2	23	17	10	10	26	63	100
Change in fair value of acquisition note	417	35	34	67	18	1,406	1,525	(232)	13	105	(1,850)	(1,964)	100
Change in fair value of warrant liability	198	269	17	0	712	(577)	152	(7,294)	577	2,790	3,885	(42)	100
Other expense	0	0	0	0	(325)	0	(325)	(46)	0	0	(220)	(266)	(100)
Total other (expense)	216	2	(71)	(27)	298	721	921	(7,749)	347	2,555	510	(4,337)	(400)
Income (loss) before tax	(18,993)	(21,368)	(5,254)	(4,028)	(3,745)	(2,776)	(15,803)	(10,550)	(2,766)	(633)	(9,010)	(22,959)	(12,000)
Income tax (benefit)	(2,350)	(1,184)	0	0	0	0	0	(970)	0	0	(1,109)	(2,079)	0
Net income (loss)	(16,643)	(20,184)	(5,254)	(4,028)	(3,745)	(2,776)	(15,803)	(9,580)	(2,766)	(633)	(7,901)	(20,880)	(12,000)
Basic income per share	(\$1.76)	(\$1.96)	(\$0.39)	(\$0.28)	(\$0.23)	(\$0.15)	(\$1.00)	(\$0.51)	(\$0.14)	(\$0.03)	(\$0.35)	(\$1.01)	(\$0.43)
Diluted income per share	(\$1.76)	(\$1.96)	(\$0.39)	(\$0.28)	(\$0.23)	(\$0.15)	(\$1.00)	(\$0.51)	(\$0.16)	(\$0.03)	(\$0.35)	(\$1.01)	(\$0.43)
Basic shares outstanding	9,449	10,300	13,547	14,538	16,519	18,839	15,861	18,904	19,697	21,577	22,400	20,663	27,750
Diluted shares outstanding	9,462	10,300	13,547	14,538	16,519	18,839	15,861	18,904	20,663	22,359	22,400	20,663	27,750
Key ratios:													
Revenue growth	54.3%	76.9%	38.9%	67.3%	68.7%	31.8%	49.9%	14.8%	-5.7%	18.9%	4.1%	7.7%	6.5%
Gross margins	17.1%	21.9%	32.4%	38.8%	34.2%	40.9%	36.8%	39.6%	38.9%	42.9%	30.4%	37.9%	40.0%
R&D/revenue	45.3%	30.4%	25.2%	24.0%	23.6%	16.1%	22.1%	15.9%	15.0%	12.2%	22.7%	16.4%	12.9%
G & A/revenue	121.3%	80.7%	71.2%	52.2%	54.8%	60.3%	59.3%	49.9%	53.4%	54.1%	113.5%	68.3%	50.0%
Sales/revenue	38.9%	29.2%	21.4%	19.7%	15.6%	13.0%	17.3%	13.9%	17.6%	16.2%	20.6%	17.1%	14.5%
Tax Rate	-12.4%	-5.5%	0.0%	0.0%	0.0%	0.0%	0.0%	9.2%	0.0%	0.0%	12.3%	-9.1%	0.0%
Deprec, amort & non-cash comp.	4,500	4,500	1,031	1,185	1,069	1,106	4,391	1,031	1,070	1,200	1,099	4,400	4,500
Cash Flow/share	(\$1.35)	(\$1.55)	(\$0.32)	(\$0.20)	(\$0.21)	(\$0.13)	(\$0.83)	(\$0.05)	(\$0.11)	(\$0.10)	(\$0.39)	(\$0.70)	(\$0.28)
EBITDA/share	(\$1.55)	(\$1.63)	(\$0.31)	(\$0.19)	(\$0.20)	(\$0.13)	(\$0.80)	(\$0.10)	(\$0.10)	(\$0.09)	(\$0.38)	(\$0.70)	(\$0.26)

Balance Sheets

(\$000s)

Assets:	12/31/16	12/31/17
Current Assets		
Cash and equivalents	\$9,502	\$9,541
Accounts receivable, net	11,748	10,958
Other current assets	2,174	2,707
Total current	23,424	23,206
Fixed assets, net	4,738	5,550
Other long-term assets		
Restricted cash	300	350
Patents and other intangible assets, net	1,503	4,478
Investment in joint venture	268	246
Goodwill	12,029	17,992
Other noncurrent assets	172	399
Total non-current	14,272	23,465
TOTAL ASSETS	\$42,434	\$52,221

Liabilities:

Current liabilities		
Accounts payable and accrued expenses	\$8,148	\$8,715
Capital lease obligations, current	109	272
Deferred revenue	789	516
Term note/Line of Credit	2,000	10,137
Total current	11,046	19,640
Term note	2,654	0
Capital lease obligations	374	624
Deferred rent payable	290	360
Warrant liability	2,018	4,403
Deferred revenue, long-term	428	429
Total liabilities	16,810	25,456
Stockholders' equity	25,624	26,765
TOTAL LIAB & EQ	\$42,434	\$52,221

Quarterly Earnings Comparisons

	March	June	September	December	Total
Revenues (in \$Mill)					
2014					\$10,199
2015	4,370	4,185	4,001	5,484	18,040
2016	6,068	7,001	6,750	7,230	27,049
2017	6,966	6,604	8,028	7,523	29,121
2018					31,000
Earnings per Share (diluted)					
2014					(\$1.76)
2015	(0.44)	(0.51)	(0.54)	(0.47)	(1.96)
2016	(0.39)	(0.28)	(0.23)	(0.15)	(1.00)
2017	(0.51)	(0.16)	(0.03)	(0.35)	(1.01)
2018					(0.43)

Revenues by Category (\$000s)

	2014	2015	2016	2017	2018E
Biopharma services	\$5,606	\$11,564	\$15,321	\$14,629	\$15,000
Clinical services	4,432	5,651	10,651	10,774	8,000
Discovery services	161	825	1,077	3,718	8,000
Total revenues	\$10,199	\$18,040	\$27,049	\$29,121	\$31,000

Other Revenue Metrics

Biopharma projects: Total	103	125	224	230
Biopharma projects: Immuno-Oncology	3	18	59	60

Source: Dawson James Securities, Inc. estimates; Company documents

Important Disclosures:

Price Chart:



Price target and ratings changes over the past 3 years:

Initiated – Buy - June 27, 2017 – Price Target \$11.00

Updated – April 6, 2018 – Rating lowered to Neutral

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Ratings Distribution	# of Companies	% of Total	# of Companies	% of Totals
Market Outperform (Buy)	15	83%	6	40%
Market Perform (Neutral)	3	17%	0	0%
Market Underperform (Sell)	0	0%	0	0%
Total	18	100%	6	33%

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