

COMPANY UPDATE

August 4, 2011

Stoc	k Ra	iting:

OUTPERFORM

12-18 mo. Price Target	\$16.00
GNOM - NASDAQ	\$7.71

3-5 Yr. EPS Gr. Rate	NM
52-Wk Range	\$18.55-\$6.60
Shares Outstanding	26.0M
Float	13.9M
Market Capitalization	\$200.6M
Avg. Daily Trading Volume	313,650
Dividend/Div Yield	NM/NM
Fiscal Year Ends	Dec
Book Value	\$2.41
2011E ROE	NM
LT Debt	\$7.5M
Preferred	NM
Common Equity	\$63M
Convertible Available	No

EPS Diluted	Q 1	Q2	Q3	Q4	Year	Mult.
2010A	(51.15)	(13.92)	(21.87)	(0.69)	(13.60)	NM
2011E	(0.48)A	(0.56)A	(0.60)	(0.53)	(2.17)	NM
Prior (E)		(0.53)	(0.51)	(0.33)	(1.84)	NM
2012E					(1.30)	NM
Prior (E)					(0.66)	NM
Revenue	Q1	Q2	Q3	Q4	Year	Mult.
(\$/mil)						
2010A	0.3	1.1	4.2	3.8	9.4	25.1x
2011E	6.8A	5.9A	3.6	8.6	24.9	9.5x
Prior (E)		8.1	9.3	13.1	37.4	6.3x
2012E					49.9	4.7x
Prior (E)					90.0	2.6x

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Complete Genomics, Inc.

Look to the Backlog

SUMMARY

Rapid price erosion contributed to lower than expected 2Q11 results. More importantly, we are comfortable with the future outlook supported by the two large July contract signings with the National Cancer Institute (NCI) and the Inova Translational Medicine Institute, totaling 2,700 genomes for \$14M. We are most encouraged by the contracts' ~\$5,200 ASP, despite intra-quarter price discounting from ILMN (~\$4k/genome on 5/9/11) indicating, in our opinion, a choice for quality over price. We have adjusted our model to reflect current pricing and are consequently lowering our PT to \$16 from \$18.50. We see GNOM shares as oversold and are confident buyers on the weakness. We reiterate our Outperform.

KEY POINTS

- Rapid ASP decline impacts 2Q revenue. On the quarter, GNOM's 2Q ASP came in below expectations with an ASP/genome of ~\$6,200 vs. our \$9,000/genome forecast. We expect a more gradual pace of price erosion going forward as the backlog grows and in light of the two large July contracts adding 2,700 genomes at ~\$5,200/genome.
- Shipment variability. Given GNOM's nascent nature, lumpiness in timing and quantity of sample arrivals is to be expected. Specifically, management indicated that the order of 615 genomes from the Institute of Systems Biology has arrived slowly, with fewer than 100 genomes sequenced to date, hence the sequential decline to over 600 genomes shipped in 3Q.
- Hotly contested contract wins point to bright future. 2H11 backlog growth should improve especially with the NCI and Inova deals. We are encouraged by the ASP (~\$5,200/genome) especially in the face of pricing pressure from ILMN (\$4k/genome). We see the Inova contract as a leading indicator of GNOM's clinical potential.
- CLIA certification key for future growth. As sequencing interest extends beyond academic research into the clinic, CLIA certification's importance will become an important business driver. GNOM indicated that they are aggressively pursuing certification and expects to be CLIA certified by mid-2012.
- Adjusting estimates. We adjusting our sales estimate to reflect more rapid price declines, and now forecast 2011 revenue of \$24.9M (4,065 genomes) and 2012 revenue of \$49.9M (13,500 genomes). Our model calls for a loss per share of \$2.17 and \$1.30 in 2011 and 2012, respectively.

Stock Price Performance

1 Year Price History for GNOM 18 15 12 9 6 6 23 2011 Created by BlueMarks

Company Description

Complete Genomics is a life sciences tools company that has developed and commercialized what is arguably the most powerful DNA sequencing platform in the industry. GNOM operates on a service model, offering its NGS technology as an innovative, end-to-end, outsourced service to provide customers with data that is immediately ready to be used for genome-based research.

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GNOM's Future Outlook

Genomes Sequenced

We expect GNOM's business and the outsourcing sequencing service model to grow. With the NHGRI budget focusing significantly on sequencing and its translation into the clinic, we continue to model double digit growth for GNOM's sequencing business despite funding headwinds. Sequencing is a priority for future scientific and medical discovery/innovation and is therefore more sheltered then other technologies and experimental systems. Additionally, as core center capacity continues to be constrained by long wait lists and the whole genome sequencing remains a complicated experiment, we believe GNOM will represent an attractive model for many researchers seeking viable alternatives.

Looking forward, we model total genomes sequenced to grow from 4,065 in 2011 to 200,000 by 2016. This represents annualized revenue of \$25M in 2011 and over \$200M in 2016.

Exhibit 1: Genomes Sequenced

	2010	2011E	2012E	2013E	2014E	2015E	2016E
Genomes Sequenced Cost per Genome	825 \$11.2	4,065 \$6.1	13,500 \$3.7	30,000 \$2.7	55,000 \$2.2	100,000 \$1.6	200,000 \$1.0
Total Service Revenue (\$000s)	\$9,261	\$24,740	\$49,883	\$81,638	\$119,138	\$156,638	\$206,638
Growth			101.6%	63.7%	45.9%	31.5%	31.9%

Source: Oppenheimer & Co. Estimates.

A key variable during early stage growth for GNOM is the size of their order backlog. With a turn around time of 67 days and a capacity to run 600 genomes per month (increasing to between 800 and 1200 by 4Q11), it is important that GNOM continues to book new contracts to ensure its future business. It is for this reason that we are encouraged by GNOM's recent announcement of a combined 2,700 genome booking (~\$14M), coming from both the NCI and Inova Translational Medical Institute. Both are important deals for differing reasons. NCI was a hotly contested government contract with award assignment akin to winning first place in a high profile competition. Inova on the other hand is the first industry contract awarded to a non-academic provider with a focus on translating sequencing data into clinically applicable outcomes.

For 2011, we model a backlog of 6,775 genomes growing to 13,275 genomes by 2012. It is important to point out that with time backlog grows and then eventually shrinks, as we expect GNOM's technologic advances and capacity increases will lead to a much more fluid backlog.

Exhibit 2: GNOM's Backlog

	2010	2011E	2012E	2013E	2014E	2015E	2016E
Genome Backlog	1,050	6,775	13,275	18,275	13,275	13,275	13,275
Additons	,	9,790	20,000	35,000	50,000	100,000	200,000
Subtractions		4,065	13,500	30,000	55,000	100,000	200,000
Starting Backlog Value		\$11,000	\$29,708	\$39,825	\$45,688	\$26,550	\$19,913
Additions		\$43,448	\$60,000	\$87,500	\$100,000	\$150,000	\$200,000
Subtractions		\$24,740	\$49,883	\$81,638	\$119,138	\$156,638	\$206,638
Ending Backlog Value (\$000's)	\$11,000	\$29,708	\$39,825	\$45,688	\$26,550	\$19,913	\$13,275
Additions ASP/Genome		\$4.4	\$3.0	\$2.5	\$2.0	\$1.5	\$1.0
Backlog ASP/Genome (\$000s)	\$10.5	\$4.4	\$3.0	\$2.5	\$2.0	\$1.5	\$1.0
F							
% Growth Backlog		545.2%	95.9%	37.7%	-27.4%	0.0%	0.0%
% Growth Backlog (\$s)		170.1%	34.1%	14.7%	-41.9%	-25.0%	-33.3%

Source: Oppenheimer & Co. Estimates.



Concurrent with our survey and channel checks, driving future business growth will be a decrease in ASP/genome. Historically, the cost per genome has been falling at astounding rates, with technological advances happening at speeds mostly unprecedented in almost all industries. Costs have fallen so precipitously, from well over \$10M/genome in 2004, that now scientists are looking to its clinical utility. Below is a historical graph of price decreases per genome.

\$10,000,000 | Cost Per Genome | S10,000,000 | \$10,000 | S10,000 | S10 | S10

Exhibit 3: Total WGS Market (2011E-2016E)

Source: NHGRI Statistics

Perhaps most important is the bifurcation that is occurring between core genome sequencing cost and service model sequencing cost. As of the April 2011 data point in Exhibit 3, cost per genome is \$16,712. In contrast, GNOM is able to deliver genomes at \$5,000/genome for contracts smaller then 50 orders, \$4,000 per genome for contracts greater then 50 and price becomes negotiable for exceptionally large orders. Moreover, GNOM's technologic advancements should drive further price declines. The company's next generation system (expected in mid-2012) should drop consumable costs by a factor of 10, allowing for even greater future price compression. This underscores the importance of the service model in driving wider adoption of sequencing service, as the outsourced businesses are likely more able to drive price reductions then their core competitors.

Specifically, we expect the sequencing inflection point for more widespread adoption to be reached when ASP near the highly touted and publicized \$1,000/genome; a landmark we think GNOM will be first to. Based on our assumptions from Exhibit 1, we expect GNOM to reach this threshold sometime within 2014. We model GNOM increasing market penetration into the whole genome sequencing market in concordance with ratable price declines.

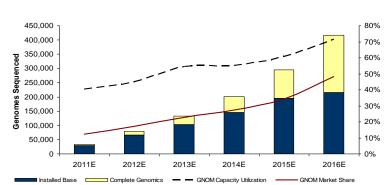


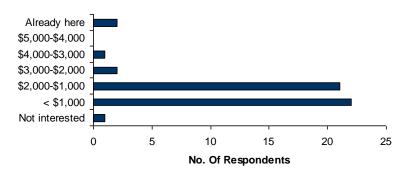
Exhibit 4: Total WGS Market (2011E-2016E)

Source: Oppenheimer & Co. Estimates.



Supporting our conclusion that ASP is one of sequencing's gating factors is data from our 2Q genomics survey. 82% of respondents are planning to dedicate future budget to sequencing. With 92% of them not owning their own machine, 62% planning to do whole human genome sequencing, 90% having heard of outsourcing services and 57% considering using these services, we think outsourcing services will become ever more prevalent in the future. Additionally, 88% of respondents believe that the tipping point for widespread sequencing is in the \$2,000-\$1,000 range, in agreement with our hypothesis.

Exhibit 5. Cost/genome where researchers do whole genome sequencing without reservations



Source: Oppenheimer Genomics Survey

Complete Genomics Quarterly Income Statement (\$MMs except per share data)

	2009	1Q10	2Q10	3Q10	4Q10	2010	1Q11	2Q11	3Q11E	4Q1E	2011E
System Sales	0.62	0.34	1.09	4.16	3.80	9.39	6.83	5.87	3.61	8.63	24.94
Total Revenue	0.62	0.34	1.09	4.16	3.80	9.39	6.83	5.87	3.61	8.63	24.94
COGS General and Administrative Sales and Marketing R&D	5.03 4.95 1.80 22.42	4.08 3.10 1.23 6.17	4.91 1.76 1.31 4.93	6.01 2.33 1.59 4.95	4.90 2.15 1.98 5.64	19.90 9.35 6.11 21.69	6.58 2.78 2.70 6.81	6.12 3.47 3.14 8.03	7.30 3.07 3.97 8.12	9.22 3.37 4.32 8.20	29.23 12.68 14.12 31.16
Operating Income	(33.59)	(14.24)	(11.82)	(10.72)	(10.87)	(47.65)	(12.04)	(14.89)	(18.85)	(16.47)	(62.25)
Interest Expense Other, net	(3.47) 1.10	(0.31) 0.21	(0.83) 0.03	(0.91) (9.23)	(0.78) 1.39	(2.83) (7.61)	(0.34) (0.08)	(0.81) (0.26)	(0.80) 0.00	(0.80) 0.00	(2.75) (0.26)
Pre-Tax Income	(35.95)	(14.34)	(12.63)	(20.86)	(10.26)	(58.09)	(12.46)	(15.96)	(19.65)	(17.27)	(65.35)
Taxes Tax Rate	0.00 NM	0.00 NM	0.00 NM	0.00 NM	0.00 NM	0.00 NM	0.00 NM	0.00 NM	0.00 NM	0.00 NM	0.00 0.0%
Net Income	(35.95)	(14.34)	(12.63)	(20.86)	(10.26)	(58.09)	(12.46)	(15.96)	(19.65)	(17.27)	(65.35)
Non-GAAP EPS Avg. Shares Out Fully Dil.	(\$386.56) 0.1	(\$51.15) 0.3	(13.92) 0.9	(\$21.87) 1.0	(\$0.69) 14.8	(\$13.60) 4.3	(\$0.48) 26.0	(\$0.56) 28.3	(\$0.60) 32.6	(\$0.53) 32.8	(\$2.17) 29.9
Margin Analysis	2009	1Q10	2Q10	3Q10	4Q10	2010	1Q11	2Q11	3Q11E	4Q1E	2011E
COGS Gross Margin General and Administrative Sales and Marketing R&D Operating Margin Net Margin	NM NM NM NM NM NM	NM NM NM NM NM NM	NM NM NM NM NM NM	144.4% -44.4% NM NM NM NM	128.9% -28.9% NM NM NM NM	NM NM NM NM NM NM	96.3% 3.7% 40.7% 39.5% 99.6% NM NM	104.4% -4.4% 59.1% 53.5% 136.9% NM NM	202.3% -102.3% 85.0% 110.0% 225.0% NM NM	106.8% -6.8% 39.0% 50.0% 95.0% NM NM	117.2% -17.2% 50.9% 56.6% 124.9% NM
Growth Analysis	2009	1Q10	2Q10	3Q10	4Q10	2010	1Q11	2Q11E	3Q11E	4Q1E	2011E
Revenue COGS Selling and Marketing Selling, General and Administrative Operating Income EPS Source: Oppenheimer Estimates, Company Reports	NM NM NM NM NM	NM NM NM NM NM	NM NM NM NM NM	NM NM NM NM NM	NM NM NM NM NM	NM NM NM NM NM	NM NM NM NM NM	438.6% 24.7% 96.7% 62.9% NM NM	-13.3% 21.6% 31.7% 63.9% NM NM	127.0% 88.1% 56.4% 45.4% NM NM	165.6% 46.9% 35.7% 43.6% NM NM



Investment Thesis

GNOM has developed a proprietary, innovative sequencing platform including robust bioinformatics tools in order to provide researchers with a complete outsourced human genome sequencing service. Initial data provided by GNOM and early users have demonstrated the company has produced high quality sequence data, validating the platform. Despite a rapidly expanding installed base of NGS instruments we believe demand from the research community and later from the clinical community will continue to outpace the total market sequencing capacity, thus creating an important niche for service providers like GNOM. Our \$16.00 target price assumes a WACC of 11.76% and a 2.0% terminal growth on an estimated EBITDA of \$160M in 2022.

Price Target Calculation

We value GNOM by a discounted cash flow (DCF) analysis. Our \$16.00 target price (down from \$18.50) assumes a WACC of 11.76% and a terminal growth rate of 2.0% on an estimated EBITDA of \$160M in 2022.

Key Risks to Price Target

These include: 1) competition from the high throughput NGS installed base, 2) uncertainty over research funding, 3) technology obsolescence, 4) competition from other service providers, 5) the clinical market perhaps taking time to develop, and 6) financing risk.

Important Disclosures and Certifications

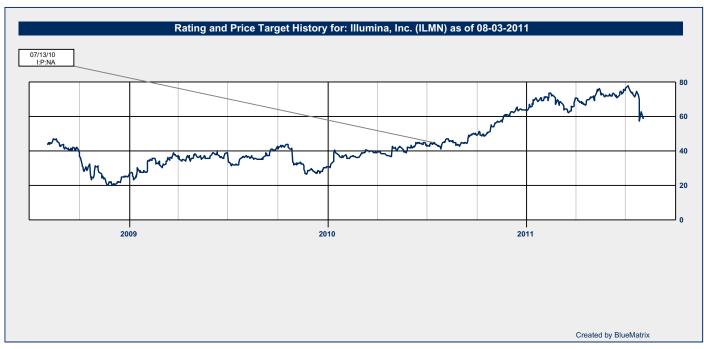
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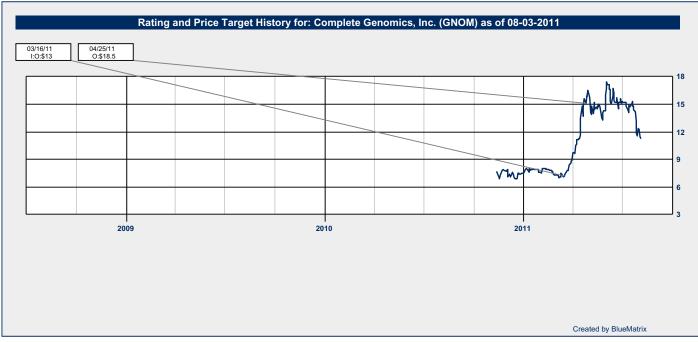
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Distribution of Ratings/								
			IB Serv/Pa	st 12 Mos.				
Rating	Count	Percent	Count	Percent				
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PERFORM [P]	256	43.80	84	32.81				
UNDERPERFORM [U]	10	1.70	2	20.00				

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Oppenheimer & Co.	Inc. makes a	a market in the	securities	of ILMN	and (GNOM

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