HILLIARD LYONS

COMPANY UPDATE / ESTIMATE CHANGE

Medical Devices
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Key Metrics

NEOG - NASDAQ (as of 07/18/17)		$64.60
Price Target		N/A
52-Week Range		$50.53 - $69.97
Shares Outstanding (mm)		38.6
Market Cap. ($mm)		$2,463
1-Mo. Average Daily Volume		100,577
Institutional Ownership		88%
Debt / Total Capital		0.0%
ROE (TTM)		9.8%
Book Value / Share		$12.21
Price / Book Value		5.3x
Indicated Dividend / Yield	$0.00	0.0%
TTM Operating Margin		18.0%

Operating (non-GAAP) EPS FYE 5/31

	2017A	Prior 2018E	Curr. 2018E	Prior 2019E	Curr. 2019E
1Q	$0.25	$0.30	$0.30		$0.34
2Q	$0.29	$0.33	$0.34		$0.39
3Q	$0.24	$0.29	$0.28		$0.32
4Q	$0.32	$0.38	$0.38		$0.42
Year	$1.11	$1.30	$1.30	$1.46	$1.46
P/E	58.1x		49.6x		44.2x

Figures may not add up due to rounding

Revenue ($mm)

	2017A	Prior 2018E	Curr. 2018E	Prior 2019E	Curr. 2019E
1Q	$83.6	$95.8	$94.4		$104.6
2Q	$90.7	$102.2	$102.3		$113.5
3Q	$88.4	$98.9	$97.8		$107.9
4Q	$98.8	$114.7	$109.5		$119.1
Year	$361.6	$411.5	$404.0	$453.2	$445.1

Company Description *– Based in Lansing, Michigan, Neogen develops, manufactures, and markets food and animal safety diagnostics and equipment. Neogen currently operates in two reportable segments: Food Safety and Animal Safety. Food Safety products include diagnostic test kits and complementary products sold to food producers and processors. Animal Safety products include pharmaceuticals, rodenticides, insecticides, disinfectants, veterinary instruments, and genomics services.*

Neogen Corporation

NEOG – NASDAQ – Neutral – 3

Animal Safety Segment Struggles Continue but Strength Elsewhere Generates a Solid Quarter

- **4Q17 Results:** Neogen reported revenues of $98.8 million, growth of 9.7% from the same period a year ago. This fell short of our estimate of $103.8 million and the Street consensus estimate of $100.8 million. Operating EPS increased 19.9% to $0.32 compared to our estimate of $0.33 and the Street consensus of $0.32. We remind investors our estimates included $2.5 million in revenue from acquisitions, which did not materialize in the quarter.
- **Positive Highlights:** Dehydrated Culture Media & Other grew 40% year-over-year thanks to acquisitions and international GeneSeek strength. Solid expense control in Sales & Marketing helped keep operating expenses below our estimate on a dollar basis. The gross margin was 47.6%, exceeding our estimate of 47.2% and falling just shy of the Street consensus of 47.7%.
- **Negative Highlights:** Most categories in the Animal Safety segment fell short of our expectations, as organic revenues were down ~4% for the quarter. Notable misses came from Animal Care & Other and DNA Testing.
- **Outlook and Estimates:** The long-term story remains positive in our view, as regulatory changes, consumer trends, and international opportunities continue to provide additional support to this well-managed company. We decreased our FY18 revenue estimate to $404.0 million from $411.5 million but left our FY18 EPS estimate unchanged at $1.30. We decreased our FY19 revenue estimate to $445.1 million from $453.2 million and also left that EPS estimate unchanged at $1.46.
- **Valuation:** NEOG closed yesterday at 58.2X trailing operating EPS and 49.6X our FY18 operating EPS estimate. While these multiples are above historical norms, we believe the market may be pricing in lower tax rates, whereas we are not modeling them until final numbers are legislated. Thus, we feel the shares are appropriately valued and encourage investors to wait for a better entry point.

Note Important Disclosures on pages 7 and 8
Note Analyst Certification on page 7

Revenue Growth	4Q17 Y/Y	FY17 Y/Y	Segment Quick Review - full year commentary
Life Sciences	0.7%	24.2%	Continued benefit from truck driver drug testing legislation in Brazil
Veterinary Instruments & Disposables	0.3%	-0.8%	Detectable needles up 11% but tough comps for other product lines
Animal Care & Other	-24.4%	-19.2%	ThyroKare removal impact over $6 million; segment still declined ex. ThyroKare
Rodenticides, Disinfectants, & Insecticides (Biosecurity)	12.7%	30.5%	Growth from acquisitions; felt $1.4 million impact from lost distribution agreement
DNA Testing Service	8.2%	12.9%	Growth from poultry, cattle, and canine; slowdown due to Scotland subsidiary cannibalization
Total Animal Safety	**0.4%**	**8.8%**	**Organic growth was flat**
Natural Toxins, Allergens, & Drug Residues	14.5%	12.1%	Mycotoxin outbreak led to a 19% increase in kit sales; allergen tests were up 16%
Bacteria & General Sanitation	2.8%	2.4%	Minimal commentary provided
Dehydrated Culture Media & Other	40.1%	33.4%	Strong international GeneSeek results and acquisitions
Total Food Safety	**21.5%**	**17.0%**	**Organic growth of 9%, or 14% in constant currency**
Neogen Revenue Growth	**9.7%**	**12.5%**	

Source: Company Reports

We note Neogen changed their segment analysis reporting to provide more detail on the Food Safety business. We will update this table to reflect the greater granularity in future reports.

ADDITIONAL COMMENTARY

Earnings Conference Call Notes

- International growth remained strong but, as expected, currency headwinds prevented much of that performance from making it to the financials. Currency headwinds deducted roughly $1.5 million from the top line and $0.01 from EPS for the quarter. For the full year, currency headwinds reduced revenues by approximately $7.2 million.
- Neogen's Scotland-based operations reported a 32% increase in local currency (13% after currency translation) for FY17 as genomics and mycotoxin kit sales delivered strong growth. Neogen's Brazilian revenues grew 45% before dollar conversion for the full year (up 65% after currency conversion), largely due to truck driver drug testing legislation and to a lesser extent, the acquisition of a genomics business there. The Mexican subsidiary expanded 6% in constant currency terms but showed a 7% decline after dollar conversion for FY17. Neogen also generated a 32% increase in sales in China (24% after currency conversion), albeit off of a small base. Management also mentioned growth north of 60% in India.

- Despite the problems a stronger dollar presents, cheaper potential international acquisitions now await, which has been stressed the past few quarters. This, combined with what we believe is a desire to diversify their largely domestic manufacturing base to tamp down gross margin volatility and boost their international presence, leads us to think acquisitions will be internationally focused in the near term. A prime example of Neogen expanding their international manufacturing footprint includes recent acquisitions of Quat-Chem and Rogama. Management noted they continue to look for opportunities but remain disciplined on valuations.
- Veterinary Instruments & Disposables fell just shy of our expectations for the quarter. The company's patented detectable needles continue to do well.
- As a reminder, the Animal Care & Other sub-segment growth was impacted by the halting of ThyroKare sales (over $6 million in sales in FY16). Management aims for FDA approval in late FY18.
- GeneSeek revenue grew ~8% on a worldwide basis. The slowdown was a result of tough comps; while we had expected that given 4Q16 growth of ~34%, it still fell short of our estimates. For the year, the business was up around 19% as a result of poultry, cattle, and even canine growth. Management pointed to additional investment in the business in the coming fiscal year.
- Biosecurity portfolio organic growth was likely negative for the quarter but was aided by acquisitions. The category was in line with our expectations as it faced tough comparisons due to the resolution of a vole outbreak in the Northwestern U.S. The company launched multiple products during the quarter under its Ramik brand.
- Lanxess cancelled a distribution agreement with Neogen for its disinfectants that cost the company about $1.4 million in revenue in FYQ17, with most of that in 4Q17. However, management sounded bullish about the long-term prospects of replacing that revenue with their own branded products and achieving a higher margin. Interestingly, the company launched a line of disinfectants targeted for the veterinary clinic with formulations that kill specific companion animal viruses. We expect slow uptake of this offering in that market but like the long-term prospects.
- Allergen test kits grew 16% in FY17 with management citing increasing global concerns about food allergens and greater uptake of a relatively new multi-tree nut test. Neogen also launched a raw pork test this quarter for customers to detect speciation issues in various meat samples.
- Mycotoxin kits sales jumped 19% for the year as a result of the mycotoxin outbreak in U.S., Canada, and Europe. A record corn crop in North America had the unusual effect of exacerbating a mycotoxin outbreak, as crops had to be temporarily stored on the ground outside. The tarps covering the crops were conducive to mold growth that created the mycotoxins. Neogen has received very positive feedback on several new water-based tests for mycotoxins. Management also noted their new tests were the only ones on the market that allowed testing with the same sample for multiple different types of mycotoxins. There have been some reports of mycotoxin issues in the new grain crop in different parts of the globe but it is too early to tell if it will have a significant impact.
- The Bacteria & General Sanitation category edged modestly higher for the quarter and the year. Commentary on the call was limited, but we note underlying trends such as machine sales were strong throughout the fiscal year, and the company discontinued a small product line.
- Management once again noted they are working with some large meat producers in genotyping foodborne parasites to potentially identify where they came from. The company's progress in this realm impresses us, particularly the new NeoSeek test that can identify all bacteria in a sample without multiple test runs. This type of innovation could bolster Neogen's standing in the industry and aid newly branded services such as the NeoNet system and Recall Support Services program, both of which were launched this quarter.

Other Income Statement Notes

- The gross margin, which has struggled of late from a myriad of factors, expanded year-over-year to 47.6% compared to 46.5% in 4Q16. This exceeded of our estimate of 47.2% and fell just shy of the Street consensus of 47.7%. The currency headwinds and missing ThyroKare continued to be an issue but this quarter had the benefit of a positive business mix. The mycotoxin outbreak, as well as allergen test growth, benefited the gross margin as these products carry noticeably higher margins than the company as a whole.

- Operating expenses were lower than our estimate on a dollar basis but barely higher as a percent of sales. Sales & Marketing expenses were about $1.6 million lower than our estimate and Research & Development expenses were slightly lower. General & Administrative expenses, however, were about $0.5 million higher than we expected. Total operating expenses grew slower than revenue. The operating margin of 19.2% beat our estimate of 19.0% and the Street consensus of 18.7%.
- The effective tax rate of 34.1% for the quarter was lower than our 35.0% estimate. Management guided to an effective tax rate around 34-35% for FY18.
- Operating (non-GAAP) net income was $19.0 million versus our estimate of $19.7 million. With 38.63 million diluted shares outstanding (versus our estimate of 38.60 million), operating EPS came in at $0.32 versus our estimate of $0.33 and the Street consensus estimate of $0.32.

Balance Sheet and Cash Flow Review

- Neogen generated $60.7 million in cash from operations for FY17, a ~72% increase year-over-year. That growth was compared to a soft FY16 in terms of cash generation. The company invested about $14.6 million in property and equipment this fiscal year.
- Neogen has no long-term debt, cash and securities of $143.6 million, and a comfortable current ratio of 8.1X. Total liabilities/equity is a conservative 12.0%.

ESTIMATES UPDATE & OUTLOOK

The biggest driver of our revenue estimate changes was the Animal Safety segment. The declining estimates were concentrated in the Animal Care & Other category, although all estimates outside of biosecurity were decreased to reflect the quarter. On the Food Safety side, we slightly decreased forecasts for Natural Toxins, Allergens, & Drug Residues mainly due to a small miss this quarter. However, this is more than offset by increases to Dehydrated Culture Media & Other as the category gave a strong upside surprise this quarter, and we are encouraged by early trends in acquired biosecurity businesses reporting through the Food Safety segment. We left Bacteria & General Sanitation estimates essentially unchanged.

Despite the decrease to our revenue estimates for FY18 and FY19, our EPS estimates remain unchanged. A solid quarter and management commentary about new products in the Food Safety segment led us to more bullish assumptions about the gross margin. This, plus lower Sales & Marketing expense forecasts, were the main drivers of better operating margin assumptions going forward.

Management Changes

We can’t discuss our outlook without mentioning the important announcement made a day prior to the earnings release. Co-founder and long-time leader Jim Herbert will step down as CEO of Neogen. Mr. Herbert will remain Executive Chairman and work closely with new CEO John Adent in the transition of responsibilities. Mr. Adent most recently served as the CEO of Animal Health International (AHI), a distributor and significant customer of Neogen. From the beginning of his tenure in 2004 to present, AHI more than quadrupled revenue (now around $3.3 billion) and was acquired by Patterson Companies in 2015. Mr. Adent’s first managerial role was with Purina in the Asia-Pacific region and later in Europe. As management stated on the call, this international experience will be a positive addition for Neogen’s ambitions.

Both in our discussion with the company and on the conference call, Mr. Herbert stressed he will remain active with the company, particularly in the areas of M&A and R&D. Both are critical places for strategic moves, and the vision of Mr. Herbert to position Neogen uniquely along the food supply chain has clearly bore fruit for shareholders. Thus, we are pleased to see Mr. Herbert not only remain active with the company but also focus on areas of strategic importance. This will give Mr. Adent time to learn the business; his experience lends itself more to the Animal Safety business, so Food Safety will probably be the steepest learning curve for him. We trust Ed Bradley, VP of Food Safety, will help him successfully climb the curve.

This slow transition will also give Mr. Adent time to immerse himself in and absorb Neogen's distinctive culture, which we believe shareholders would strongly prefer to see intact. Overall, our initial reaction to the new CEO is positive. It would be difficult to find someone with intimate knowledge of both sides of the business, and Mr. Adent clearly has deep knowledge about the Animal Health industry. Further, we are reassured culture will remain intact for two reasons: it runs deep and has been firmly instilled by the management team over the years, and Mr. Herbert will still remain active as Executive Chairman.

VALUATION & SUITABILITY

Our FY18 operating EPS estimate reflects an impressive 17% growth. We believe this roughly reflects achievable intermediate-term EPS growth for the company, although it will inevitably bounce around from year to year. NEOG closed yesterday at 58.2X trailing operating EPS and 49.6X our next twelve months operating EPS estimate. The forward PEG ratio is therefore 2.9. While the P/E multiples and PEG ratio are above historical norms (the PEG ratio has historically mean reverted to ~2.25), we believe the market could be pricing in lower tax rates, whereas we are not modeling them until final numbers are legislated. Thus, we feel the shares are appropriately valued and encourage investors to wait for a better entry point.

Neogen is well diversified for a mid-cap company in terms of products and customer base but does experience some event-driven revenues, which can be unreliable. Additionally, relatively low trading volumes and a high multiple are factors in our suitability rating of 3.

RISKS & CONSIDERATIONS

- **Integration of acquisitions** – Neogen has been very acquisitive throughout its history, and we anticipate that trend to continue. Failure to successfully integrate acquisitions could lead to financial results below expectations.
- **Failure of new products** – Neogen also internally develops new products and product lines. Failure to successfully develop and sell new products could harm profitability.
- **Proprietary protection** – Neogen has many products that are not under patent protection, and they rely on trade secrets to protect proprietary methods and formulas. Financial harm could arise should Neogen fail to protect trade secrets.
- **Dependence on agricultural industry** – Neogen derives a significant amount of revenue from customers in or associated with the agricultural industry, which is subject to many factors beyond their control, such as weather.
- **Event-driven revenue** – Neogen is a frequent beneficiary of food safety problems, such as foodborne pathogen outbreaks, allergen contamination, etc. Failure of these events to occur could lead to lower than anticipated revenue growth.
- **Legal** – Product lawsuits are common in the health care sector. An unfavorable court decision could hamper the ability to market a product, whether a current patent under Neogen is successfully challenged or Neogen is determined to have infringed upon the patent of a competitor.
- **Regulatory** – Neogen has some products that are subject to regulatory approval. Additionally, the food safety industry is anticipating new regulations, which could have uncertain effects on industry participants.

NEOGEN CORPORATION									NEOG: NEUTRAL
In millions	2015 A	2016 A	2017 A	1Q18 E	2Q18 E	3Q18 E	4Q18 E	2018 E	2019 E
Fiscal Period End	5/31/2015	5/31/2016	5/31/2017	8/31/2017	11/30/2017	2/28/2018	5/31/2018	5/31/2018	5/31/2019
Animal Safety Revenue	151.6	174.9	190.3	46.6	51.8	49.1	56.1	203.7	219.7
Food Safety Revenue	131.5	146.4	171.3	47.1	48.5	46.8	51.5	194.0	211.0
Other			4.0	0.6	1.9	1.9	1.9	6.3	14.4
Total Revenue	**283.1**	**321.3**	**361.6**	**94.4**	**102.3**	**97.8**	**109.5**	**404.0**	**445.1**
Gross Margin %	*49.3%*	*47.6%*	*47.6%*	*49.2%*	*49.1%*	*46.9%*	*48.3%*	*48.4%*	*48.8%*
Gross Profit	**139.7**	**153.1**	**172.0**	**46.4**	**50.2**	**45.9**	**52.9**	**195.4**	**217.3**
Sales and marketing	51.8	57.6	62.4	16.3	17.3	16.9	18.6	69.1	75.9
General and administrative	25.2	29.2	34.2	9.4	9.3	9.4	9.5	37.6	41.1
Research and development	9.6	9.9	10.4	3.1	3.2	3.0	2.8	12.2	13.9
Total Operating Expenses	86.6	96.7	107.0	28.8	29.8	29.3	31.0	118.9	130.9
Operating Income	**53.1**	**56.4**	**64.9**	**17.6**	**20.3**	**16.6**	**21.9**	**76.4**	**86.4**
Operating Margin %	*18.8%*	*17.6%*	*18.0%*	*18.7%*	*19.9%*	*16.9%*	*20.0%*	*18.9%*	*19.4%*
Royalty Income	0.2	0.2	-	-	-	-	0.2	0.2	0.2
Non-operating items	(1.2)	(1.1)	0.9	0.3	0.3	0.3	0.3	0.3	0.3
Non-GAAP Pretax Income	**53.3**	**56.6**	**64.9**	**17.6**	**20.3**	**16.6**	**22.1**	**76.6**	**86.6**
Effective Tax Rate	*35.6%*	*34.2%*	*34.0%*	*34.3%*	*35.1%*	*33.5%*	*34.2%*	*34.3%*	*34.3%*
***Non-GAAP Net Income**	**34.3**	**37.2**	**42.7**	**11.6**	**13.2**	**11.0**	**14.6**	**50.4**	**57.0**
GAAP Net Income	**33.5**	**36.6**	**43.8**	**11.8**	**13.4**	**11.2**	**14.8**	**51.2**	**57.9**
Diluted Shares Outstanding	37.5	37.9	38.4	38.7	38.8	38.8	38.9	38.8	39.0
Non-GAAP Diluted EPS	**$ 0.92**	**$ 0.98**	**$ 1.11**	**$ 0.30**	**$ 0.34**	**$ 0.28**	**$ 0.38**	**$ 1.30**	**$ 1.46**
GAAP EPS	**$ 0.90**	**$ 0.97**	**$ 1.14**	**$ 0.30**	**$ 0.35**	**$ 0.29**	**$ 0.38**	**$ 1.32**	**$ 1.48**

**GAAP and Non-GAAP Net Income are calculated after allocations to non-controlling interests, which are not shown in this table*

Source: Company Reports and Hilliard Lyons estimates

Additional information is available upon request

Prices of other stocks mentioned: Patterson Companies (PDCO - $42.97)

Analyst Certification

I, Kurt A. Kemper, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject company(ies) and its (their) securities. I also certify that I have not been, am not, and will not be receiving direct or indirect compensation in exchange for expressing the specific recommendation(s) in this report.

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Definitions of Ratings:
Buy - We believe the stock has significant total return potential in the coming 12 months.
Long-term Buy - We believe the stock is an above average holding in its sector, and expect solid returns to be realized over a longer time frame than our Buy rated issues, typically 2-3 years.
Neutral - We believe the stock is an average holding in its sector, is currently fully valued, and may be used as a source of funds if better opportunities arise.
Underperform - We believe the stock is vulnerable to a price set back in the next 12 months.

Definitions of Suitabilities:
1. A large cap, core holding with a solid history.
2. A historically secure company which could be cyclical, has a shorter history than a "1" or is subject to event driven setbacks.
3. An above average risk/reward ratio could be due to small size, lack of product diversity, sporadic earnings or high leverage.
4. Speculative, due to small size, inconsistent profitability, erratic revenue, volatility, low trading volume or a narrow customer or product base.

	Hilliard Lyons Recommended Issues		Investment Banking Provided in Past 12 Mo.	
Rating	**# of Stocks Covered**	**% of Stocks Covered**	**Banking**	**No Banking**
Buy	36	29%	14%	86%
Hold/Neutral	79	63%	5%	95%
Sell	10	8%	0%	100%

As of 7 July 2017

Other Disclosures

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