

SEMLER SCIENTIFIC (SMLR)

Equity Capitalization		Balance Sheet Summary				
Common shares outstanding	6.4	Add: debt	0.0			
Recently converted warrants	0.1	Less: cash	(3.0)			
Options	1.8	Total net debt	(3.0)			
Fully converted shares outs.	8.1	Option proceeds	(6.0)			
Recent share price (12.16.19)	\$45.00					
Fully-converted market cap.	\$364.5	Enterprise Value	\$355.5			
Estimates and Valuations Metrics				Fully-taxed	P/E	
2018E revenues	\$21.4	EV/2018E Sales	16.6x	2019E EPS	\$1.07	41.9x
2019E revenues	\$33.6	EV/2019E Sales	10.6x	2020E EPS	\$2.12	21.3x
2020E revenues	\$51.3	EV/2020E Sales	6.9x	2021E EPS	\$3.08	14.6x

Semler Scientific is a single-product (potentially dual product within 12 months), medical diagnostics testing company serving the vascular disease market with a predominantly SaaS-oriented business model. The company has a small market cap (\$364 million fully converted), is relatively thinly traded, and is listed on the OTC.

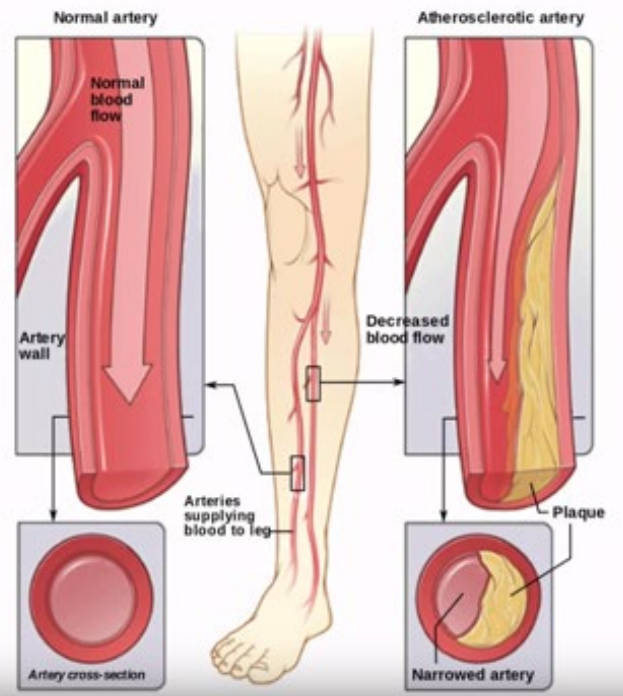
Semler's QuantaFlo system tests for Peripheral Arterial Disease (PAD.) Based on our analysis of the past few years of financial statements, we believe SMLR is on the cusp of the largest QuantaFlo deployments in its history (please see income and cash flow statement discussion for details.)

As a result, we expect SMLR to report revenue and earnings that are substantially above street estimates over the next two years. Our fully-taxed 2020 EPS estimate of \$2.15 is more than 65% above consensus estimates of \$1.29. For 2021, we believe GAAP fully-taxed EPS could exceed \$3 per share. We believe the shares offer the potential to double over the next 12 months, with the possibility of higher upside over time.

What is Peripheral Arterial Disease (PAD)?

- PAD is the narrowing or blockage of the vessels (arteries) that carry blood from the heart to the legs, stomach, arms and head.
- It is primarily caused by the buildup of fatty plaque in the arteries, which is called atherosclerosis. PAD can occur in any blood vessel, but it is more common in the legs than the arms.
- A narrowing or blockage of these arteries results in reduced blood flow.
- This is similar to the narrowing of the arteries in the heart that cause a heart attack or in the carotid arteries that cause a stroke.
- PAD risks are elevated in persons over the age of 65 or persons over 50 with diabetes or other high-risk factors (smoking, etc.)
- Independent studies suggest 8.5 to 18 million Americans have PAD.
- We believe the figure is at least 12 million today.
- Over 2 million US adults have been diagnosed with PAD.

Peripheral Artery Disease (PAD)



<https://www.youtube.com/watch?v=O0MQiKufle4>

Why does PAD Matter?

- Industry data suggest 8.5 to 18 million Americans have PAD today.
- PAD patients are at significantly greater risk of suffering a heart attack or stroke. According to one study of 68,000 patients (source: WSJ), patients with PAD have a 21% chance of suffering a heart attack or stroke, being hospitalized or dying of complications within one year. According to that same study, risks double for those who also have artery disease in the heart. As many as 60% of PAD patients have both.
- According to the National Institute of Health, more than 50% of PAD patients are asymptomatic.
- Some studies estimate the total annual costs for patients with PAD exceed \$21 billion, including nearly \$10 billion for hospitalizations. One study estimated spending on PAD accounted for more than 2% of all Medicare spending (CardioVascular Coalition.)

Testing for PAD

Industry Standard – Ankle-Brachial Index Test (ABI)

- The ABI is a measure of the ratio of the blood pressure taken from a person's ankles divided by the blood pressure of one's arms (brachial).
- Ratios below 0.9 suggest existence of PAD.
- Doppler ABI test requires a doppler, ultra-sound gel and blood pressure cuffs.
- PAD undetectable in 7-8% of cases of patients with non-compressible (i.e. hardened arteries.)
- Requires manual processes.
- Typically takes 10 to 25 minutes

- Industry players: Newman Medical's simpleABI & ABI 400CL, Summit Vista ABI, Perimed's Periflux.

QuantaFlo


- Semler's second generation blood volume measurement test was approved in March 2015.
- The system measures blood volume changes in the extremities using a technique known as volume plethysmography which calculates results automatically via a proprietary software algorithm.
- Test consists of placing a sensor on the fingers and toes for 15 seconds each.
- Test takes 2 to 5 minutes to perform.
- Sensors are connected to the QuantaFlo software platform, which automatically processes and stores results.

Comparing QuantaFlo to traditional ABI


- In a clinical study the QuantaFlo was compared to the pressure cuff/Doppler probe ABI method.
- QuantaFlo was 80.2% accurate (n=333 limbs) and Doppler ABI was 79.3% accurate (328=limbs), demonstrating QuantaFlo's substantially equivalent accuracy in determining the presence of PAD.
- QuantaFlo is able to measure existence of PAD in patients with non-compressible arteries.

PAD Screening Recommendations


Guidelines for the Management of Patients With Peripheral Arterial Disease



AMERICAN
COLLEGE of
CARDIOLOGY



American
Heart
Association.



American
Diabetes
Association.

**“Patients over age 65 or over age 50 with history of smoking or diabetes should be evaluated for vascular disease,”
according to latest guidelines.**

QuantaFlo

QuantaFlo is a simple, but highly effective diagnostic test for PAD that is connected to a cloud-based software platform. This platform is tightly integrated with Semler's health insurance carrier partners. The test provides very valuable and accurate PAD data and does so in a fraction of the time (2 to 4 minutes vs. 10 to 20+ minutes) offered by the industry's benchmark product offering, ABI Doppler test.

ABI Doppler is typically not used in primary care physician offices, due to the time required to perform the test and lack of simplicity.

QuantaFlo has seen growing adoption by health insurance carriers. Several of the largest payors have found the product so compelling that they are licensing QuantaFlo on behalf of their owned and operated physician practice groups. This represents a powerful form of market validation.

Total Addressable Market

Semler's primary target market is primary care physician practices, clinics and nurse practitioners. When including cardiovascular specialists and other categories, the size of the market expands.

- We estimate the total practitioner market numbers 250,000 to 350,000.
- Based on an annual license fee of \$6,000, this suggests a market potential of **\$1.5 billion to \$2.1 billion**. Even if we assume only 25% of this total represents the serviceable addressable market, it suggests a still sizable TAM of **\$375 million to \$525 million** per year.
- A secondary market is the home risk assessment (HRA) market – i.e. nurses visiting patients at home because patients are physically unable or unwilling to visit a doctor or clinic; this market is difficult to size, but the potential is significant.
- The HRA model is variable and is priced on a fee/test basis at roughly \$40/ QuantaFlo test.

We believe QuantaFlo has a long runway of growth, with penetration at only 3% - 4% of its addressable market, by our estimates. Management believes Semler is still in the very early innings of executing against its opportunity set.

Exceptional Business Model

QuantaFlo enjoys a SaaS business model (75% subscription revenues, with the balance of revenues largely recurring in nature) with highly compelling incremental operating margins, due to its nearly 90% gross margins and the high operating leverage of its expense structure. In the most recently completed third quarter, SMLR reported 35% operating margins and 60% top-line growth. Based on several qualitative and quantitative indicators, we believe revenue growth and operating margins are poised to experience further improvements over the coming 12 months.

Although SMLR is admittedly a small company in terms of size, it enjoys best in class rule of 40 SaaS profitability and growth metrics, with a highly compelling valuation. Please see the table below.

Ticker	Company	Next Qtr		Rule of 40	EV/Sales 2020E (3)	P/E 2020
		Sales Growth (1)	TTM op. margin			
		A	B			
SMLR	SEMLER	68	31	99	6.9x	21.3x
ZM	ZOOM VIDEO (2)	96	2	98	20.3x	224.9x
PAYC	PAYCOM	27	30	57	16.7x	60.6x
AYX	ALTERYX	46	6	52	12.1x	119.6x
CRWD	CROWDSTRIKE (2)	94	-43	51	13.7x	NM
TTD	TRADE DESK	33	18	51	13.2x	74.0x
VEEV	VEEVA SYSTEMS	22	28	50	15.0x	58.6x
ADBE	ADOBE	21	28	49	10.3x	28.1x
ANSS	ANYSYS	12	36	48	12.6x	37.8x
MSFT	MICROSOFT	10	35	45	7.7x	27.3x
XRO AU	XERO LTD.	32	8	40	12.8x	181.2x

Source: SMLR figures are GCI estimates; All other estimates are from Bloomberg.

(1) Sales growth is based on next quarter's estimated YOY growth rate.

(2) ZM and CRWD sales growth figures are actual, using the most recently reported quarter.

(3) Calendarized for the purposes of comparison.

Industry Feedback

We have had discussions with several customers and industry checks are encouraging: One executive suggested QuantaFlo could generate \$50 to \$100 million in estimated net present value cost savings within his company, simply through early detection of disease and scaring patients into leading healthier lifestyles. Comments include the following:

- "...potential big opportunity in terms of predictive medicine with this device"
- "...simplicity of putting it in doctor's office....don't need manual expert (or a) trained cardiovascular technician..."
- "Potential for \$50 - \$100 million in net present value savings compared to base population." (for this particular payer client)
- "...ABI testing usually taking place once they (patient) were pretty severe and had other conditions present..."
- "...high roi product..."
- "...test is much easier to do..."
- "...among easiest tests to administer..."
- "...high reimbursement..."
- "...potential for standard of care..."

We find the last quote to be particularly interesting as standard of care could one day include persons 50 and over getting a PAD test during their annual physical exams.

While Semler's IP in and of itself does not prevent others from entering the industry, QuantaFlo has deep and growing relationships with some of the largest insurance carriers in the industry. Once embedded in the partner's platform, there is very little incentive for partners to replace QuantaFlo. Importantly, we believe Semler is actively working on development of a second, complementary product that could be deployed as soon as 2020. This would likely further the competitive positioning of QuantaFlo.

Income Statement and Cash Flow Statements Suggest More Growth Lies Ahead

Based on our analysis of the past few years of financial statements, we believe Semler is on the cusp of the largest QuantaFlo deployments in its history. As shown in the table below, the company has seen a notable increase in the cash flow statement line item "Purchase of assets for lease." This line item likely reflects two dynamics: increased investment in QuantaFlo devices in advance of customer deployments and purchases of replacement units for the field.

Through the first nine months of 2019, purchase of assets for lease has more than tripled, increasing by 240% to \$1.1 million from \$0.323 million. At the same time, we estimate that the cost of QuantaFlo devices has fallen from \$200 a unit a year ago to only \$150 at present. Taken together, this suggests to us that SMLR is building inventory and replacing old units at roughly 4x the rate of the prior year. Assuming 50% of units are replacement units, we estimate Semler has been adding over 1,000 units to backlog in each of the past 4 quarters and almost 5,000 units cumulatively over that period. **We estimate SMLR has placed less than 1,500 units YTD, suggesting as many as 3,500 units are sitting in "backlog" (to be clear, the company does not have a balance sheet item for deferred revenue, nor does it disclose any information regarding backlog.) If we assume \$5,000 - \$6,000 in license fee per device, an estimated \$17.5 - \$21 million in potential ARR (annual recurring revenue) has yet to hit the income statement. For perspective, we estimate 2019 license revenue at only \$22.9 million. We cannot predict the exact timing of revenue recognition, but we believe that it is likely not a matter of if but when a material step-up in revenue takes place. We see these cash flow statement trends as highly indicative of a material forthcoming ramp in subscription revenues.**

	<u>1Q:17</u>	<u>2Q:17</u>	<u>3Q:17</u>	<u>4Q:17</u>	<u>1Q:18</u>	<u>2Q:18</u>	<u>3Q:18</u>	<u>4Q:18</u>	<u>1Q:19</u>	<u>2Q:19</u>	<u>3Q:19</u>
Purchase of assets for lease (mil.)	\$0.399	\$0.192	\$0.173	\$0.160	\$0.058	\$0.080	\$0.185	\$0.383	\$0.425	\$0.354	\$0.323
Estimated cost for CPE	400	300	200	200	200	150	150	150	150	150	150
Est. number of units added to "backlog"	998	640	865	800	290	533	1233	2553	2833	2360	2153
Assume 50% discount factor	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
Adj. number of units added to "backlog"	499	320	433	400	145	267	617	1277	1417	1180	1077

Source: Company reports, GCI Partners estimates

We find a similar story in the oft ignored equipment sales line item on the income statement. While this line item is not a recurring revenue stream, it is indicative of how many units of QuantaFlo were sold to the home risk assessment (HRA) market during the quarter.

Based on the year-to-date data, HRA market units are up dramatically year on year. During 2019, we have seen a more than tripling in year-to-date equipment sales from \$274k to \$843k. Assuming a sales price point of \$200 per unit, we estimate that Semler has placed roughly 4,200 QuantaFlo units during the first 9 months of 2019, compared with about 1,400 units in the year ago period. This is highly encouraging although revenue does not translate quite the same way in this market. SMLR gets paid on per test basis in the HRA market. However, the more QuantaFlo devices in the field, the closer QuantaFlo gets to becoming a standard of care for the PAD market. In that regard, these developments are also constructive.

	1Q:18	2Q:18	3Q:18	4Q:18	1Q:19	2Q:19	3Q:19	4Q:19E
Equipment sales (in mil.)	\$0.105	\$0.116	\$0.053	\$0.112	\$0.246	\$0.306	\$0.291	\$0.250
Price per unit sold (estimate)	200	200	200	200	200	200	200	200
Units sold (estimate)	525	580	265	560	1230	1530	1455	1250
% change (year-over-year)					134%	164%	449%	123%
Source: Company filings, GCI Partners estimates								

Company Hiring Trends Are Bullish

Furthermore, we are encouraged by hiring trends at the company. Headcount is up 44% year over year as of September 30, 2019. It is especially noteworthy that many of the company's recent hires are in new territories, with extensive hiring in various sales functions and customer support. Management has indicated that the robust hiring is in anticipation of future growth. Coupled with the irrefutable trends in the cash flow statement and equipment sales line items, this suggests to us that meaningful deployments are likely in 2020.

Distribution

SMLR markets its QuantaFlo platform through the insurance carriers, home-health risk assessment companies (HRAs), which are effectively distribution arms of the carriers, and other organizations (primary care physicians, hospitals, clinics, etc.) However, to date, the payers and HRAs account for the overwhelming majority of revenues and growth in the business. This is expected to continue.

Semler's distribution model provides for a highly scalable operating model in comparison with other software/ software-like businesses, where sales and marketing often constitute 25%-50% of reported revenues. At scale, we expect sales and marketing to represent 15% or less of revenue.

We believe that United Health and Humana are Semler's two largest customers currently.

License fee growth has been driven by insurance carriers paying for software licenses. We expect carriers to continue to drive license adoption for QuantaFlo and estimate individual QuantaFlo licenses are priced at \$5,000 to \$6,000 per year.

Adoption is being driven by a combination of the long-term expected economic savings associated with reduced hospitalization and readmittance and improved health outcomes. Multiple carriers we have spoken to have suggested that products like QuantaFlo are necessary to help bend the healthcare cost curve. Moreover, QuantaFlo also benefits from Medicare Advantage reimbursement.

Management

Semler is led by CEO Doug Murphy-Chutorian. Mr. Murphy has been CEO of the company since 2012 and has been responsible for driving the adoption of QuantaFlo. Mr. Murphy has over 30 years of operating experience in healthcare, including roles as clinician, academician, inventor, entrepreneur, Chief Executive Officer, Chairman of the Board, and consultant to financial firms.

Mr. Murphy is a named inventor on more than 30 patents and has guided more than 50 products through various regulatory approval processes. Mr. Murphy is a cardiologist and did his fellowship in Cardiology at the University of Stanford.

Management and the board are highly aligned with shareholders. Mr. Murphy owns over 840,000 shares, options and warrants (worth roughly ~\$36 million). In aggregate, senior officers and directors own approximately 1 million fully converted shares, representing over 12% of the company. Company founder, Herbert Semler, his son Eric Semler, and largest shareholder William Chang cumulatively own an additional 2.987 million shares, representing another 37% of fully-converted shares outstanding.

Capital Allocation and Balance Sheet

Semler is already generating strong free cash flow and has used its free cash flow to purchase more than 2% of shares outstanding this year. The company has no debt we expect the company to generate roughly \$20 million in cash (6% of the current market cap) over the next five quarters.

Our Projections

We expect SMLR to report revenue and earnings that are substantially above street estimates during 2020 and 2021. We estimate 2020 and 2021 revenues of \$51 million and \$68 million, respectively, representing respective growth rates of 52% and 33%, respectively. Our projections incorporate a moderate year-end 2021 QuantaFlo penetration rate of 8%.

For 2019, we estimate 128% growth in fully-taxed EPS to \$1.07. **Our fully-taxed 2020 EPS estimate of \$2.15 (up 100%) is more than 65% above consensus estimates of \$1.29.** For 2021, we estimate GAAP fully-taxed EPS could exceed \$3 per share.

On our estimates, SMLR trades at P/E multiples of roughly 21x and 15x fully-taxed 2020 and 2021 EPS, respectively. We believe these multiples to be low relative to the growth opportunity that lies ahead for the company and the high quality of its business model.

Based on a 30x fully-taxed P/E multiple, we believe the shares offer the potential to double over the next 12 months, with the possibility of higher upside over time.

Disclaimer

GCI Partners Opportunity Fund, LP has an economic interest in the common shares of Semler Scientific, Inc. The Fund may reduce or sell all its holdings at any time without further notice. The information contained herein reflects the opinions and projections of the Fund and Investment Manager (as of the date of this publication), which is subject to change without further notice. No representation or warranty is being made concerning the accuracy of any data presented. All information provided in this document is for information purposes only.

Risks

- Competition.
- Concentration of revenues from few customers.
- Single product company (for now).
- Regulatory risk: Changes to ACA; modifications to reimbursements; Medicare for all, etc.

Potential Catalysts

- Broader roll-out by existing and new insurance carrier partners.
- Introduction of a second product, potentially in 2020.
- Continued movement to preventative care/ value-based model for healthcare.
- Uplisting to NASDAQ likely in 2H:20.